

Mental Health, United States, 2010



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EXECUTIVE SUMMARY

Mental Health, United States, 2010 is the most recent edition of a publication issued by the Substance Abuse and Mental Health Services Administration (SAMHSA) of the U.S. Department of Health and Human Services biannually since 1980. The current volume serves as a comprehensive resource for mental health statistics at the national and State levels; it draws information from 35 different data sources and includes more than 25 exhibits and 130 tables. The volume presents national-level estimates on (1) the mental health of the population, (2) providers and settings for mental health services, and (3) payers and payment mechanisms. In addition, the 2010 volume presents State-level estimates of the mental health of each State's population, as well as provider and payment mechanisms for mental health services at this level.

The 2010 edition of *Mental Health, United States* provides mental health statistics using the most recent data available. This edition also includes several new tables that provide expanded information on some special populations of interest, such as children and members of the military; mental health service provision in nontraditional settings, such as the use of clubhouses to help integrate people with mental illness into the community; and estimates particularly relevant to States, such as the impact of the recent budget crisis on service provision.

This volume is organized into seven sections. Section 1 provides an introduction

to the report and an overview of the current policy context relevant to the U.S. mental health service delivery system. Sections 2 through 5 present background information and exhibits pertinent to the mental health of the population, providers and settings, payers and payment mechanisms, and States, respectively. Section 6, Data Gaps, identifies key areas in which only limited information is available and for which further study may be indicated. Examples of gaps include the need for data that track the incidence and prevalence of mental illness, as well as the recovery process, and detailed estimates on the mental health of certain vulnerable populations, particularly children. Section 7 presents tables with detailed population, provider, payment mechanism, and State estimates.

The following are highlights of the data presented in *Mental Health, United States, 2010*:

1. Mental Health of the Population

- Approximately 11 million U.S. adults (4.8 percent) had serious mental illness (SMI) in 2009.
- More than one quarter of adults with SMI also had co-occurring substance dependence or abuse in 2009.
- During the 2001–2004 period, one out of eight U.S. children aged 8 to 15 (or 13.1

percent) had a mental health disorder in the past year.

- In 2007, more than 34,000 deaths in the United States were due to suicide.

2. Providers and Settings for Mental Health Services

- In 2009, more than one in eight U.S. adults received some type of mental health treatment in the past year.
- During the 2001–2004 period, more than half of all children with a mental health disorder received treatment in a hospital, clinic, or office within the past year.
- In 2009, 40 percent of adults with SMI reported not receiving any treatment.
- From 1996 to 2008, medication fills have increased considerably for mental health and/or substance abuse conditions. The categories of medication with the greatest growth have been antidepressant medications for adults and stimulant medications for children.

3. Payers and Payment Mechanisms

- Although mental health expenditures have increased (from \$32 billion in 1986 to \$132 billion in 2005), they have fallen as a share of all health expenditures (from 7.2 percent in 1986 to 6.1 percent in 2005).
- In 2005, public sources of coverage—such as Medicaid—accounted for more than 50 percent of all mental health expenditures.
- From 1986 to 2005, spending on prescription medications increased faster

than any other type of mental health care.

4. States: People, Providers, and Payers

- During the 2005–2009 period, State-specific prevalence of past year major depressive episodes ranged from 5.2 to 9.5 percent in adults and 6.8 to 10.3 percent in youth aged 12 to 17.
- During the 2005–2009 period, State-specific utilization rates of outpatient specialty mental health treatment ranged from 3.0 to 9.5 percent for adults and from 8.0 to 16.9 percent for youth aged 12 to 17.
- States with a large proportion of the population living in rural areas have greater shortages of mental health professionals than States with a large proportion of the population living in urban areas.

The scope of the next volume in the series, *Behavioral Health, United States, 2012*, will be broadened to include information on substance use disorders, which co-occur frequently with mental health disorders. This larger perspective on behavioral health will help strengthen the series' utility as a key resource for decision making in a changing and challenging health care landscape.

1. INTRODUCTION

1.1 The *Mental Health, United States* Series

For more than 25 years, the *Mental Health, United States* series has presented nationwide measures of mental health. Published biannually by the Substance Abuse and Mental Health Services Administration (SAMHSA), the volume serves as the Nation's most comprehensive resource for mental health statistics. The data provide timely insights into the population's mental health status, the provision of mental health treatment, and funding for that treatment in the United States.

1.2 Organization

This volume is organized into seven sections. [Section 1](#) provides an introduction to the report and an overview of the current policy context relevant to the U.S. mental health service delivery system. [Sections 2](#) through [5](#) present background information and exhibits pertinent to the mental health of the population, providers and settings, payers and payment mechanisms, and States, respectively. [Section 6](#), Data Gaps, identifies key areas in which only limited information is available and for which further study may be indicated. Examples of gaps include the need for data that track the incidence and prevalence of mental illness, as well as the recovery process, and detailed estimates on the mental health of certain vulnerable populations, particularly children. Section

7 presents tables with detailed population, provider, payment mechanism, and State estimates.

1.3 New Features

In addition to updating the data from *Mental Health, United States, 2008*, the 2010 volume contains a number of new features:

- **State-level data.** Perhaps the most significant addition is the State-level estimates section, which addresses the need for State-level data to inform day-to-day decisions on budgeting, planning, and care provision. Many of these tables and exhibits draw from SAMHSA's National Survey on Drug Use and Health (NSDUH).
- **Needs of children.** A number of tables focus specifically on the needs of and services for children.
- **Impact of State budget crises.** Results from a recent survey by NRI Inc. (2011) provide insight into the impact of the budget crises in States on mental health service provision.
- **Services in nontraditional settings.** The volume now provides key estimates for clubhouses—a nontraditional setting for nonclinical services—and inmates in Federal, State, and local facilities.
- **Treatment gap.** A number of tables consolidate the existing evidence on

treatment availability for people who need mental health services.

- **Data gaps.** The volume delineates key gaps in the available mental health data sources used as a basis for estimates to note potential areas for further study.

1.4 Policy Environment

The data from *Mental Health, United States* should be put into context before use. The policy environment will have influenced the data presented here, and the data in this volume also may influence the outcome of current policy and the formation of future policy. The mental health policy environment is currently dominated by the interconnected topics of health care reform, mental health parity, changes to Federal mental health block grants to States, and the economic recession.

Although several piecemeal reforms to the mental health and general health care system have occurred in recent years, health care reform legislation passed in 2010 is likely to have a profound effect on the treatment and financing of mental health. Based on two legislative acts in 2010—the Patient Protection and Affordable Care Act (Public Law 111-148) and the Health Care and Education Reconciliation Act of 2010 (Public Law 111-152), together referred to as the Affordable Care Act (ACA)—reform likely will change the provision of mental health care in numerous ways. Perhaps the most relevant changes are as follows:

- In 2010, adults with preexisting conditions were given access to insurance through a temporary, high-risk insurance pool called the Pre-Existing Condition Insurance Plan.

- In 2010, the age limit at which children could be covered by their parents' insurance was raised from age 22 to age 26.
- In 2011, out-of-pocket spending on prescription medication will be limited.
- In 2014, Medicaid will be expanded to cover an estimated 16 million individuals who were not covered previously and with incomes at or below 133 percent of the Federal poverty level (FPL) (Ku, 2010). Medicaid currently covers select groups of people with lower incomes and with disabilities and pays for about 28 percent of all mental health spending (SAMHSA, 2010a).
- In 2014, people ineligible for Medicaid and with incomes up to 400 percent of FPL will be allowed to receive premium subsidies through tax credits for health plans offered through State health insurance exchanges. These exchanges will be new entities that will reorganize the insurance market for health insurance—for example, by coordinating private insurance and Medicaid plans—and offer a choice of plans (HealthCare.gov, 2011).
- In 2014, Medicaid will cover medication such as barbiturates, benzodiazepines, and smoking cessation medications.

Historically, third-party coverage for treatment for behavioral health needs placed a greater burden on consumers than treatment for general medical needs. In recent years, this lack of parity has been addressed incrementally by different States and by the Federal government using various pieces of legislation, such as the Mental Health Parity Act of 1996 and the Mental Health Parity and Addiction Equity Act of

2008 (MHPAEA). This legislation should help improve access to care for people with mental illness (SAMHSA, 2010b). Moreover, as private and public coverage is expanded by health care reform, the impact of parity legislation will deepen because this legislation applies to people with existing coverage and those who are newly covered.

Since the move toward deinstitutionalization that began in the late 1960s, most mental health care has been provided in community settings (Frank & Glied, 2006). The main way by which the Federal government helps provide community-based mental health services for adults and children is through the Community Mental Health Services Performance Partnership Block Grant (CMHSPPBG) administered by SAMHSA. SAMHSA is working with States to change the block grant application, reporting, and planning requirements, starting with 2012 funding. The changes are intended to reduce the application burden on States and will likely direct funding to support people with gaps in coverage, cover treatment and support services not covered by third-party insurance, fund prevention activities, and collect data to assist in treatment planning (SAMHSA, 2011a, 2011b). With this flexibility, States may be able to target block grant funds toward needed wraparound services—such as employment or housing—that are not covered by third-party health insurance.

The economic recession in the United States and ongoing budget crises in many States have far-reaching policy implications for mental health because States play a particularly important role in underwriting mental health care provision. In 2005, State and local sources accounted for almost 20 percent of all mental health spending, whereas they accounted for 6 percent of

spending on all health conditions (SAMHSA, 2010a). The impact on care is likely quite widespread. For example, a recent survey indicates that nearly 3,000 State psychiatric beds were closed in 2009 and 2010 and that 16 States and the District of Columbia planned to close State psychiatric hospital beds in the future (NRI Inc., 2011). Any requirements that health reform places on States in the future may further challenge State budgets. People who rely on State mental health resources may be in particular jeopardy, because they also often rely on other services through State-funded sources, such as those providing education, criminal justice, or housing.

1.5 Summary

This volume of *Mental Health, United States* provides a broad perspective on many complex components of the Nation's mental health system. The volume includes updated data with an increased focus on State-level estimates, children, mental health treatment in nontraditional settings, and levels of unmet mental health needs.

The face of the U.S. mental health service delivery system is changing. This is a period of tremendous financial pressure on State and federally sponsored programs, accompanied by the potential for unprecedented reform to the health care delivery system. Ongoing monitoring and research efforts must keep up with shifts in the U.S. population size and diversity; these efforts also must monitor the impact of policy changes and budget crises on the Nation's mental health service array and financing structures.

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2. MENTAL HEALTH OF THE POPULATION

2.1 Narrative

2.1.1 Overview

Mental disorders are common, often serious, and treatable disorders that have a major impact on the U.S. population. An essential building block in the effort to prevent, treat, and assist in recovery from mental disorders is an understanding of the prevalence of mental disorders. Prevalence estimates contribute to developing an accurate picture of the level and type of mental health care needs for the overall U.S. population, as well as the risk of mental disorders within specific subpopulations of interest. National prevalence estimates can indicate the prevalence of any mental disorder or specific types of mental disorders, their severity or impairment level, and changes in the prevalence of the disorder over time.

This section presents mental disorder prevalence information for adults and children, rates of co-occurring health and substance abuse problems with mental health problems, suicide prevalence rates, and indicators of mental health status within selected special populations, including military personnel and children in the child welfare system. The tables present estimates from a variety of data sources, including the two national surveys that collect annual indicators of mental health status in the U.S. population: the National Survey on Drug

Use and Health (NSDUH) and the National Health Interview Survey (NHIS). This section addresses several of the strategic initiatives of the Substance Abuse and Mental Health Services Administration (SAMHSA), which support its mission to reduce the impact of substance abuse and mental illness on America's communities (SAMHSA, 2011). For example, a number of tables specifically pertain to SAMHSA's strategic initiatives on Trauma and Justice and on Military Families.

2.1.2 U.S. Population: Adults

(Exhibits 1 through 3 and Tables 1 through 7)

Estimates relevant to the U.S. adult population include the prevalence of mental disorders, serious mental illness (SMI), and serious psychological distress (SPD). The first estimates presented are of any mental illness (AMI) and SMI, which refers to diagnosable mental disorders that result in serious functional impairment (Tables 1 and 2). Other estimates describe the prevalence of major depressive episode (MDE) (Tables 3 and 4) and past 30-day SPD (Tables 5 through 7). SPD does not represent a diagnosis; rather, it reflects the presence of mental health symptoms that may negatively affect a person's ability to participate in family, community, and work life. This construct is measured by a symptom scale designed to assess recent psychological distress (within the past 30 days). Whereas

the concept of and term SMI is widely used by providers and policy makers, SPD is not as well known.

In 2009, 19.9 percent of the U.S. adult population experienced AMI (excluding substance use disorders) in the past year (Table 1). Prevalence of AMI was higher for females (23.8 percent) than males (15.6 percent). AMI also was higher for persons with Medicaid or Children's Health Insurance Program (CHIP) coverage (33.4 percent) or who are uninsured (24.9 percent) than for persons with private insurance (17.3 percent) or other coverage (16.1 percent).

[Exhibit 1](#) and Table 1 also indicate that 4.8 percent of adults had SMI, which equates to approximately 11 million U.S. adults annually. Table 2 shows the prevalence of specific types of mental disorder, including anxiety, mood, impulse control, and substance use disorders.

Major depressive disorder (MDD) is a serious mental disorder that can result in impairment and societal costs, including work disability and lost productivity (Katon, 2009). MDE indicates the presence of a 2-week period in the past year when a person experienced depressed mood, which is one of the components of the diagnostic criteria for MDD. In 2009, 6.5 percent of U.S. adults experienced MDE in the past year (Table 3). Table 4 shows annual prevalence estimates of MDE from 2005 to 2009.

In 2009, 3.2 percent of U.S. adults experienced SPD in the past 30 days (Table 5). [Exhibit 2](#) and Table 6 show annual prevalence estimates for SPD over time. The estimates demonstrate that national levels of recent psychological distress in adults have remained relatively stable for more than a decade. Table 7 displays rates of past 30-day SPD for persons with selected physical health disorders (e.g., asthma, diabetes, cancer).

2.1.3 U.S. Population: Children

(Exhibit 4 and Tables 8 through 12)

Children experience emotional and behavioral problems that are specific to childhood (e.g., separation anxiety, enuresis). Furthermore, the prevalence of mental disorders seen in adulthood, such as major depression, is different in children. Prevalence data for children in the United States include estimates of emotional and behavioral difficulties (Table 8), mental disorders (Table 9), attention deficit hyperactivity disorder (ADHD) (Table 10), and MDE (Tables 11 and 12).

It is estimated that one out of eight U.S. children has had some form of an emotional or behavioral health disorder in the past year (Merikangas et al., 2010). Based on combined data from 2001 through 2004, prevalence of diagnosable mental disorders with severe impairment was 11.3 percent for children aged 8 to 15, and ADHD was the most common specific disorder ([Exhibit 4](#) and Table 9). In 2009, ADHD was more than twice as prevalent among males as females (Table 10). Table 11 presents MDE prevalence rates for youth aged 12 to 17, broken out by demographic characteristics. In 2009, MDE was more prevalent among female youth (11.7 percent) than male youth (4.7 percent).

2.1.4 Substance Abuse

(Tables 13 and 14)

Persons with co-occurring mental and substance use disorders are an important subpopulation of interest. These individuals may experience treatment challenges and poorer outcomes (Najt, Fusar-Poli, & Brambilla, 2011) and may not receive integrated treatment that treats both disorders contemporaneously, as recommended (SAMHSA, 2007). Estimates

are provided to illustrate the prevalence of substance dependence or abuse, including co-occurrence of substance dependence or abuse with AMI, SMI, and MDE for adults ([Exhibit 3](#) and Table 13) and with MDE for youth aged 12 to 17 (Table 14).

In 2009, 19.7 percent of adults with AMI during the past year had a substance use disorder, with even higher prevalence among adults with SMI (25.7 percent) or MDE (22.4 percent). These are much higher rates of substance use disorders than experienced by persons without a mental disorder (6.5 percent) (Table 13). Past year co-occurring MDE and substance use disorder among youth also was common, occurring among 18.9 percent of youth with past year MDE (Table 14).

2.1.5 Suicide

([Exhibit 5](#) and Tables 15 and 16)

Suicide was the eleventh leading cause of death in the United States in 2007, accounting for more than 34,000 deaths (Xu, Kochanek, Murphy, & Tejada-Vera, 2010). Mental and substance use disorders are major risk factors for suicide (Goldsmith, Pellmar, Kleinman, & Bunney, 2002). In 2007, there were 11.3 suicides per 100,000 individuals in the U.S. population (Table 15). In that year, there were 0.5 suicides per 100,000 children aged 5 to 14 and 9.7 per 100,000 older adolescents and young adults aged 15 to 24 (Table 16). This subsection shows death rates for suicide by the most recent year (Table 15) as well as trends in death rates from 1985 to 2007 (Table 16). A limitation of these data is that they do not provide any information about suicide attempts.

Age-adjusted suicide rates are much lower for Hispanics (6.0 per 100,000 individuals in the U.S. population) than for non-Hispanics

(12.0 per 100,000) (Table 15). The suicide rate for blacks is 5.0 per 100,000 in contrast with 12.5 per 100,000 for whites. As seen in [Exhibit 5](#) and Table 16, suicide rates have decreased slightly from 12.5 per 100,000 individuals in the U.S. population in 1985 to 11.3 per 100,000 in 2007. The table also shows the much higher rates of suicide for men than for women (in 2007, 18.4 versus 4.7 per 100,000 population).

2.1.6 Special Populations

(Tables 17 through 22)

This subsection describes the prevalence of mental health disorders, behavioral and emotional problems, and symptoms within selected special populations. These special populations include persons aged 65 or older (Table 17), nursing home residents (Table 18), military personnel (Tables 19 and 20), inmates in State and Federal correctional facilities and local jails (Table 21), and children involved with the child welfare system (Table 22).

It is crucial to understand the extent of mental health needs of older adults, especially in an aging society. Projections indicate that almost one in five U.S. residents will be aged 65 or older in 2030 (Vincent & Velkoff, 2010). In 2009, 10.8 percent of persons aged 65 or older had past year AMI (Table 17). In 2004, nearly half (49.2 percent) of nursing home residents had a diagnosis of some type of mental illness (Table 18).

Active duty military personnel are another subpopulation of current interest. The length and nature of Operation Enduring Freedom (Afghanistan) and Operation Iraqi Freedom, and the multiple deployments that are often required, have put a spotlight on mental health issues, such as posttraumatic stress disorder (PTSD) and depression (Institute of

Medicine, 2010). In 2008, 10.6 percent of active duty military personnel (Army, Navy, Marine Corps, Air Force, and Coast Guard) reported having possible PTSD symptoms in the past 30 days that suggested a need for further evaluation (Table 19). Table 20 presents similar types of data for National Guard and Reserve military personnel.

Large numbers of persons with mental illness reside within the Nation's prisons and jails, raising concerns about access to adequate treatment and whether programs to divert persons from incarceration into community treatment would better serve many of these offenders (Kuehn, 2007). A

large proportion of inmates report having mental health problems: 44.8 percent of Federal prison inmates (in 2004), 56.2 percent of State prison inmates (in 2004), and 64.2 percent of local jail inmates (in 2002) (Table 21).

Many children involved in the child welfare system for maltreatment have emotional or behavioral health needs. In 2008, 22.6 percent of children reported for maltreatment showed symptoms consistent with a behavior problem as assessed by a standardized instrument of emotional and behavioral health (Table 22).

2.2 Exhibits

[Exhibits 1–5](#)

Serious Mental Illness by Key Characteristics

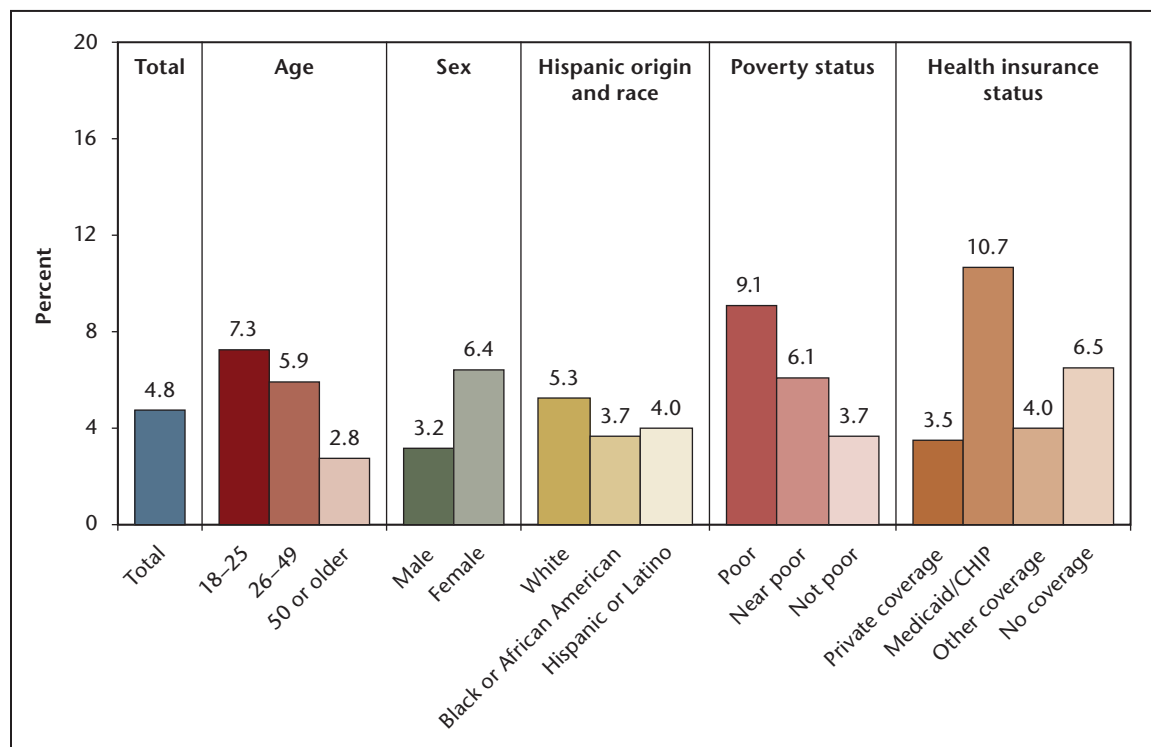
In 2009, approximately 11 million U.S. adults had serious mental illness.

Serious mental illness (SMI) is defined as having a diagnosable mental, behavioral, or emotional disorder in the past year that results in serious functional impairment. These difficulties substantially interfere with a person's ability to carry out major life activities at home, at work, or in the community. Since 2008, the annual National Survey on Drug Use and Health (NSDUH) has included measures that permit the estimation of SMI in U.S. adults. NSDUH is a nationally representative survey of the civilian, noninstitutionalized population of the United States aged 12 or older and interviews approximately 67,500 persons each year.

Exhibit 1 shows rates of past year SMI by age, sex, Hispanic origin and race, poverty status, and health insurance status. The exhibit shows the following:

- In 2009, 4.8 percent of U.S. adults aged 18 or older had SMI in the past year (representing an estimated 11.0 million U.S. adults).
- The percentage of adults with past year SMI was highest among adults aged 18 to 25 (7.3 percent) and lowest among adults aged 50 or older (2.8 percent).
- Past year SMI was more likely among women aged 18 or older (6.4 percent) than among men in that age group (3.2 percent).
- SMI was particularly prevalent among adults living in poverty (9.1 percent) and among those covered by Medicaid/Children's Health Insurance Program (10.7 percent).

Exhibit 1. Percentage of persons aged 18 or older with past year serious mental illness (SMI), by selected characteristics, United States, 2009



NOTES: Serious mental illness (SMI) among adults is defined as persons aged 18 or older who currently or at any time in the past year had a diagnosable mental, behavioral, or emotional disorder and resulting in substantial impairment in carrying out major life activities. Respondents could indicate multiple types of health insurance. CHIP is the Children's Health Insurance Program. Individuals aged 19 or younger are eligible for this plan. See Table 1 for more detail on the constructs included in this exhibit.

SOURCE: National Survey on Drug Use and Health, 2009, Substance Abuse and Mental Health Services Administration, Office of Applied Studies.

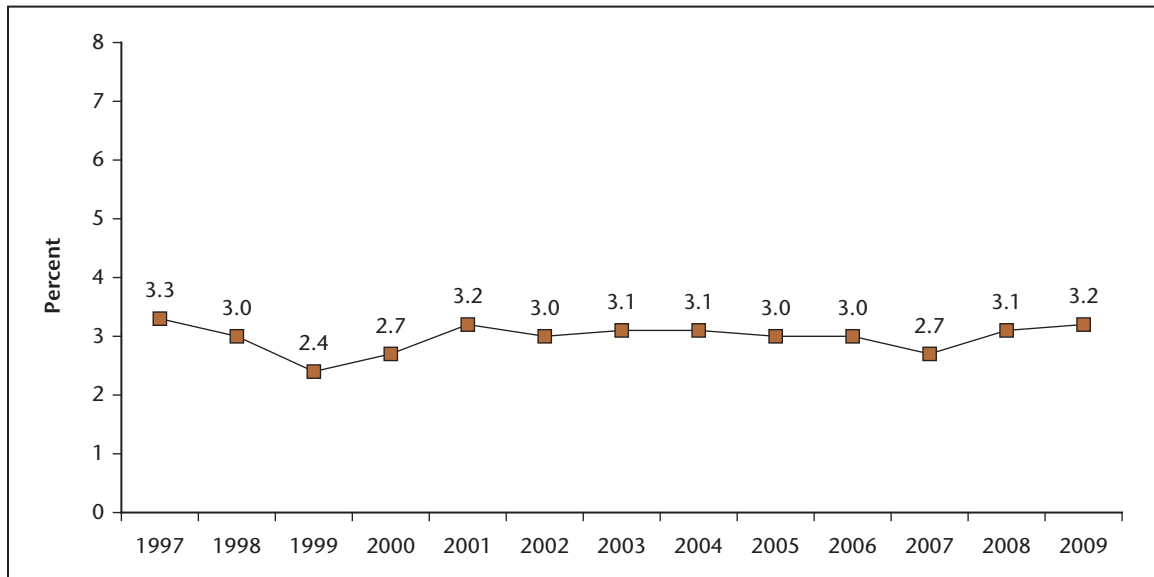
National Trends in Past 30-Day Incidence of Serious Psychological Distress among Adults

National levels of psychological distress in adults have remained relatively stable for more than a decade.

The National Health Interview Survey (NHIS) includes a measure to assess recent signs of adult mental health problems and is the only national survey that has provided an annual estimate of adult mental health status for more than a decade. NHIS is the leading survey to provide health estimates for the U.S. civilian noninstitutionalized population, including interviews in more than 33,000 households annually. The presence of the NHIS mental health indicator, serious psychological distress (SPD) in the past 30 days, allows for the examination of trends in U.S. adult mental health status over time. An indicator of recent SPD within NHIS also allows estimates that demonstrate the relationship of recent psychological distress to other health problems. SPD is not a diagnosis; rather, it refers to the presence of mental health symptoms in the past month that may negatively affect a person's ability to participate in family, community, and work life. [Exhibit 2](#) examines rates of SPD in the past 30 days for adults from 1997 to 2009. The exhibit shows the following:

- In 2009, 3.2 percent of adults aged 18 or older experienced SPD during the past 30 days.
- National levels of past 30-day SPD among U.S. adults have remained relatively stable for more than a decade. The annual percentage of adults who experienced SPD during the past 30 days ranged from 2.4 percent in 1999 to 3.3 percent in 1997.
- Estimates of SPD in this exhibit should not be directly compared with the estimates of serious mental illness (SMI) in [Exhibit 1](#). The two constructs, SPD and SMI, are measured differently. SPD is assessed by responses to a short screening measure focused on the presence of mental health symptoms in the *past 30 days*, whereas SMI is defined by measures to assess both symptoms and their resulting serious functional impairment *in the past year*.

Exhibit 2. National trends in past 30-day serious psychological distress (SPD) for persons aged 18 or older, United States, 1997–2009



NOTES: Serious psychological distress (SPD) is defined as the presence of mental health symptoms in the past month that may negatively affect a person's ability to participate in family, community, and work life. See Table 6 for more detail on the constructs included in this exhibit.

SOURCE: National Health Interview Survey, 1997–2009, Centers for Disease Control and Prevention, National Center on Health Statistics.

Co-Occurring Serious Mental Illness and Substance Dependence or Abuse among U.S. Adults

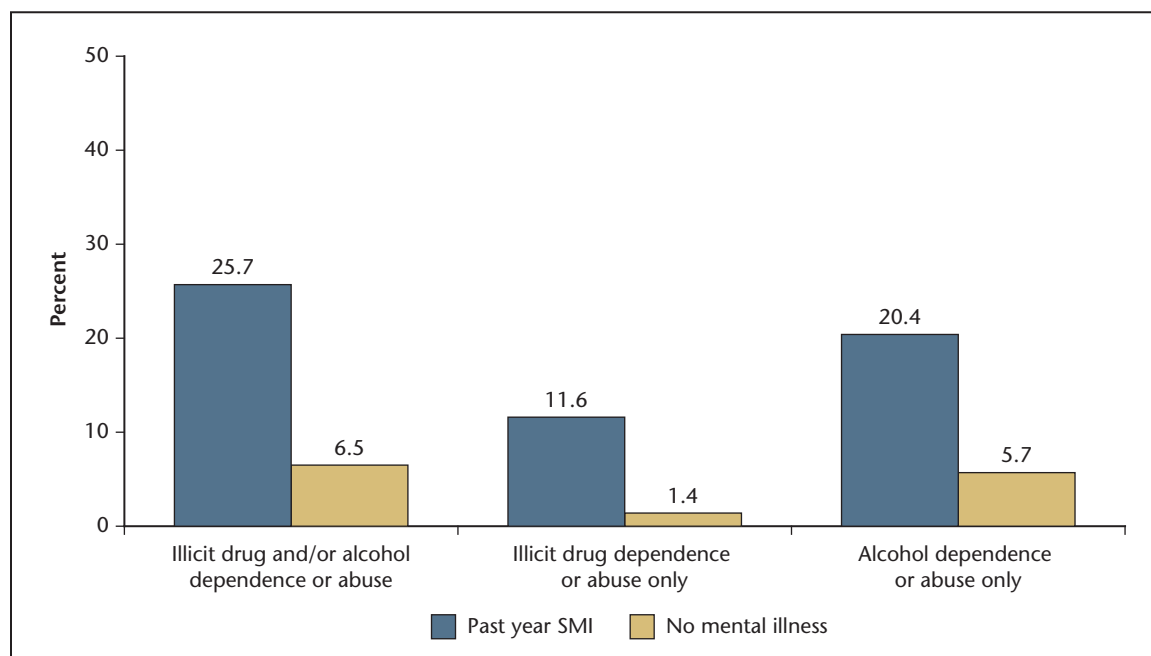
In 2009, more than one quarter of adults with SMI had co-occurring substance dependence or abuse.

The association between mental illness and substance abuse or dependence is well established (SAMHSA, 2010).

Co-occurrence of serious mental illness (SMI) with substance dependence or abuse is especially common. The National Survey on Drug Use and Health (NSDUH), a nationally representative survey of the civilian, noninstitutionalized population of the United States aged 12 or older, asks questions that assess the co-occurrence of mental illness and substance use disorders. [Exhibit 3](#) examines the prevalence of co-occurring SMI and substance dependence or abuse in the past year. This exhibit shows the following:

- In 2009, more than one quarter (25.7 percent) of adults with SMI had co-occurring substance dependence or abuse, related to either illicit drugs or alcohol.
- Regardless of SMI status, alcohol dependence or abuse was more common than illicit drug dependence or abuse.
- Adults with SMI were more likely to have any substance dependence in the past year (25.7 percent) than those without any mental illness (6.5 percent).

Exhibit 3. Percentage of persons aged 18 or older with past year serious mental illness (SMI) or no mental illness, by past year substance dependence or abuse, United States, 2009



NOTES: Serious mental illness (SMI) among adults is defined as persons aged 18 or older who currently or at any time in the past year had a diagnosable mental, behavioral, or emotional disorder and resulting in substantial impairment in carrying out major life activities.

No mental illness includes adults who did not meet the criteria for any mental illness in the past year.

Substance abuse and dependence are broad categories associated with a pattern of substance use that leads to clinically significant impairment. Abuse may include symptoms such as failure to fulfill major role obligations, legal problems, use in situations that are physically hazardous, and continued use despite persistent social or interpersonal problems. Substance dependence symptoms may include drug taking in larger amounts than intended, inability to cut down on drug use, a great deal of time spent on activities necessary to obtain the drug, and continued use despite knowledge of health or social problems caused by the drug. See Table 13 for more details on the constructs in this exhibit.

SOURCE: National Survey on Drug Use and Health, 2009, Substance Abuse and Mental Health Services Administration, Office of Applied Studies.

Mental Health Disorders among Children

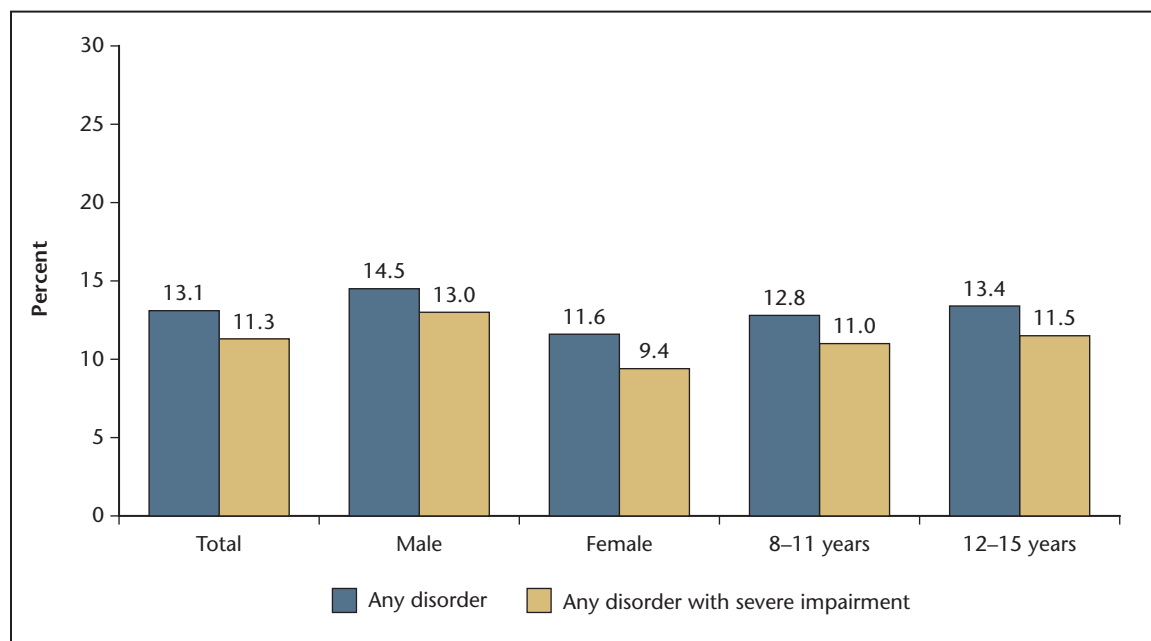
One out of eight U.S. children has a mental health disorder.

Many U.S. children experienced some form of mental health disorder in the past year. Using a sample drawn from several years of the National Health and Nutrition Examination Surveys (NHANES), a recently published study by Merikangas et al. (2010) reported results of parent and child mental health diagnostic interviews. NHANES is a nationally representative probability sample of noninstitutionalized U.S. children aged 8 to 15 who were evaluated in person at mobile examination survey centers. This particular study included 3,042 participants aged 8 to 15 who had participated in one of the NHANES surveys between 2001 and 2004. Select mental health disorders were assessed, including generalized anxiety disorder, panic disorder, eating disorders, depressive disorders, attention deficit hyperactivity disorder (ADHD), and conduct disorders. The study provides aggregate annual estimates of any childhood mental health disorder in the past year as well as the subset of these disorders that caused severe impairment to a child's ability to function at home, at school, in the community, or with peers. This study provides the most up-to-date national prevalence estimates of specific childhood mental health disorders within a sample that includes both school-age children and youth.

According to recent findings from Merikangas et al. (2010), approximately one out of eight U.S. children (13.1 percent) had one of the assessed mental health disorders in the past year. The most common are ADHD, mood disorders, and conduct disorders. [Exhibit 4](#) provides national estimates of mental health disorders in the general population of U.S. children aged 8 to 15. The study found the following:

- One of eight children aged 8 to 15 (13.1 percent) met the criteria for any mental health disorder in the past year; 11.3 percent met the criteria for a mental health disorder with severe impairment in the past year.
- Boys had a higher rate of any past year disorder than girls. This was primarily driven by the high rate of ADHD in boys. Girls, on the other hand, had higher rates of mood disorders than boys.
- For most disorders, there was only a minimal difference between the prevalence of any mental health disorder and the prevalence of any mental health disorder with severe impairment.

Exhibit 4. Percentage of persons aged 8 to 15 with any mental disorder and any disorder with severe impairment in the past year, by sex and age group, United States, 2001–2004



NOTES: Mental disorders were assessed using a structured diagnostic interview that contained modules. Disorder with severe impairment indicates two intermediate ratings or one severe rating on the six impairment questions within a diagnostic module. See Table 9 for more details on the constructs in this exhibit.

SOURCE: Merikangas, K. R., He, J.-P., Brody, D., Fisher, P. W., Bourdon, K., & Koretz, D. S. (2010). Prevalence and treatment of mental disorders among US children in the 2001–2004 NHANES. *Pediatrics*, 125(1), 75–81.

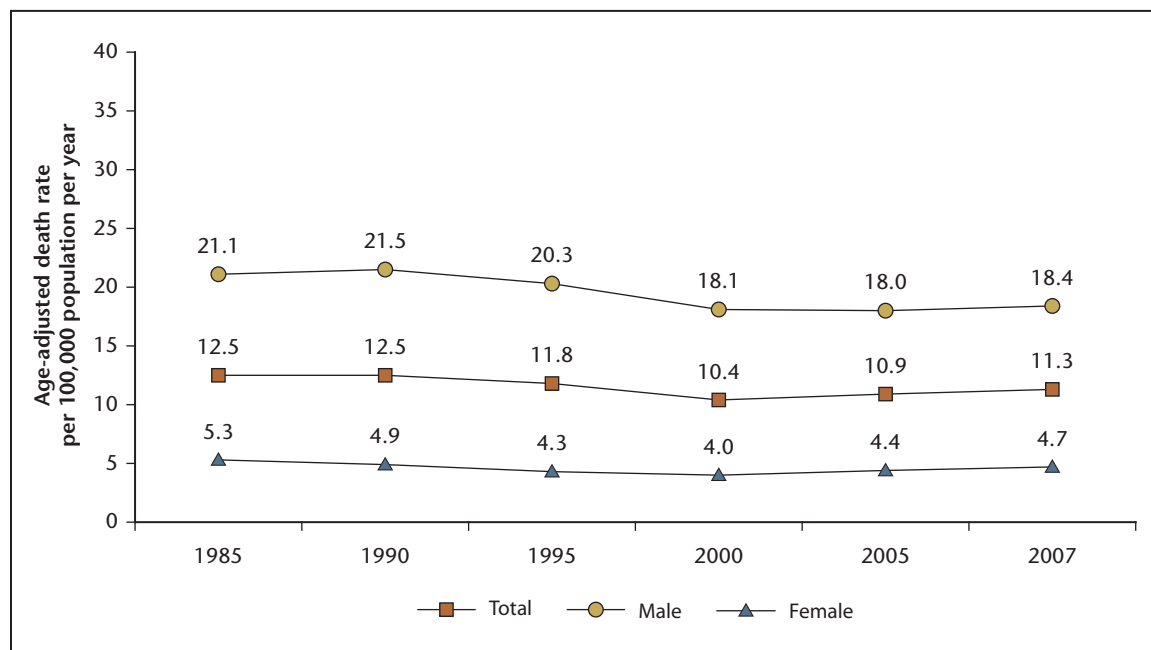
Suicide Rates among Children and Adults by Sex

*In 2007, more than 34,000 deaths in the United States resulted from suicide.
Males were much more likely than females to die from suicide.*

For more than two decades, the National Vital Statistics System has included detailed data on deaths and death rates for the U.S. population aged 5 to 85 or older. From 2000 to 2007, the age-adjusted death rate for suicide increased by 8.6 percent (Xu, Kochanek, Murphy, & Tejada-Vera, 2010). [Exhibit 5](#) shows the number of deaths resulting from suicide for every 100,000 people in the United States by sex from 1985 to 2007. This exhibit shows the following:

- In 2007, there were 11.3 suicides per 100,000 individuals in the U.S. population.
- Of the 2,423,712 deaths reported in the United States in 2007, 34,598 deaths resulted from suicide.
- The annual estimates of U.S. death rates resulting from suicide ranged from 10.4 per 100,000 individuals in 2000 to 12.5 per 100,000 in 1985.
- Suicide death rates are consistently higher among males than females. In 2007, 18.4 deaths per 100,000 U.S. males were due to suicide, compared with 4.7 deaths per 100,000 U.S. females.

Exhibit 5. Age-adjusted death rates for suicide, by sex, United States, selected years 1985–2007



NOTE: Age-adjusted rates per 100,000 U.S. standard population. See Table 16 for more details on the constructs in this exhibit.

SOURCES: 1985–1995 data with age-adjusted rates obtained from National Vital Statistics System, Centers for Disease Control and Prevention, National Center for Health Statistics.

Xu, J. Q., Kochanek, K. D., Murphy, S. L., & Tejada-Vera, B. (2010). Deaths: Final data for 2007. *National Vital Statistics Reports*, 58(19). Hyattsville, MD: National Center for Health Statistics.

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3. PROVIDERS AND SETTINGS FOR MENTAL HEALTH SERVICES

3.1 Narrative

3.1.1 Overview

As documented previously, mental illness and its associated impairment may impose substantial burdens on individuals and families that could be reduced by effective treatment. This section provides information on mental health treatments available to adults and children in the United States and the extent to which these treatments are being used. Among the populations examined are those addressed by the Substance Abuse and Mental Health Services Administration's (SAMHSA's) strategic initiatives, such as military personnel and people involved in or at risk of involvement in the criminal justice system. Many diverse data sources were used to produce the estimates, including sources that examine service use at the national level, such as the National Survey on Drug Use and Health (NSDUH) and the National Comorbidity Survey Replication, and sources that examine service use within specific specialty and nonspecialty treatment settings, such as the National Nursing Home Survey or the Nationwide Emergency Department Sample of the Healthcare Cost and Utilization Project.

This section also reports on the capacity of the mental health treatment system; that is, the number of institutions and professionals in both specialty and nonspecialty treatment settings. Service capacity is important to address in light of the recently passed health reform and mental health parity laws. Once fully implemented, these laws are likely to remove some barriers to behavioral health care, in which case it will be important that treatment capacity is adequate to meet the additional demand. For example, this volume includes estimates of specialty mental health treatment capacity from the National Survey of Mental Health Treatment Facilities.

3.1.2 Adult Mental Health Services (*Exhibits 6 through 9 and Tables 23 through 55*)

Mental Health Services

People receive mental health treatment in a variety of ways, including specialty outpatient and inpatient care settings; general medical providers; nonspecialty settings, such as schools, nursing homes, or correctional facilities; and through prescription medication. Nationwide rates of mental health service utilization among adults by treatment setting are provided by self-reported mental health need (Tables 23,

24, and 26) and by individual characteristics (Tables 25, 27, and 28). Approximately one in eight adults in the United States received some type of specialty mental health treatment in the past year. More specifically, in 2009, 13.3 percent of all U.S. adults (or over 30 million) used outpatient, inpatient, or prescription medication treatment for a mental health problem in the past year (Exhibit 7 and Table 25). Over 11 percent—about 85 percent of the 13 percent—used prescription medication (Table 25). Among adults with any mental illness (AMI), 21.2 percent received outpatient mental health treatment, 3.1 percent received inpatient treatment, and 32.4 percent received a prescription medication for mental health (Table 24). For adults with serious mental illness (SMI), the corresponding proportions were 38.0 percent (outpatient), 6.8 percent (inpatient), and 54.0 percent (medication). However, a high proportion of adults with AMI (62.1 percent) or SMI (39.8 percent) did not receive any mental health services (Exhibit 6 and Table 24). Since 2002, adults' use of specialty outpatient mental health treatment has declined slightly, while inpatient treatment use has remained fairly stable (Exhibit 8 and Table 26).

Prescription medication has become an increasingly important component of behavioral health treatment in recent years, accounting for a growing share of spending (Mark, Levit, Vandivort-Warren, Buck, & Coffey, 2011). This is illustrated by information on trends in mental health/substance abuse (MH/SA) prescription medication fills among adults from 1996 to 2008 (Exhibit 9 and Tables 30 and 31). The data indicate that the number of prescription fills for these medications more than doubled between 1996 and 2008, which corresponds to 7 percent annual

growth. However, this growth was general to all pharmaceuticals and not unique to MH/SA medications. Within the MH/SA category, three of the four medication classes reported (antidepressant, antipsychotic, and antimanic) increased at faster rates, with only antianxiety medications experiencing slower than average growth in prescribing (Exhibit 9 and Tables 30 and 31).

Nonspecialty Mental Health Services

Nonspecialty mental health services are a key part of mental health treatment for adults in the United States. This volume provides information on services used by individuals in several important nonspecialty sectors, including emergency departments (Tables 32, 33, 34, 35, 36, and 37); physicians' offices (Tables 38, 39, and 40); nursing homes, home health care agencies, and hospice facilities (Table 41); and clubhouses (Tables 42, 43, and 44). Clubhouses follow a model of service provision that focuses on the nonclinical aspects of helping people with severe and persistent mental illness. Clubhouses often provide, for example, employment services.

Emergency departments are intended to serve people with acute need, such as those with an acute mental health episode. However, this setting also serves many people who do not have insurance because the uninsured cannot be refused care at a hospital. Moreover, because a disproportionate share of people with mental illness are uninsured (Hazlett, McCarthy, Londner, & Onyike, 2004), emergency departments serve a disproportionate number of people with mental illness. In 2008, mental health was the primary diagnosis for 4.5 percent of emergency department visits by youth aged 10 to 17 (see Table 34) and 5 percent of visits by adults aged 18 to 64, but for only 2 percent of visits by adults aged 65

or older (see Table 33). Also, among those with a primary mental health diagnosis, diagnosis categories differed by age group. For youth with a primary mental health diagnosis, the most common categories were mood disorders (34.6 percent); anxiety disorders (14.9 percent); and attention deficit, conduct, and disruptive behavior disorders (12.7 percent). For adults, attention deficit, conduct, and disruptive behavior disorders accounted for less than 1 percent of visits, but other categories were much more important, such as alcohol and substance-related disorders, particularly for those aged 18 to 64 (see Table 33).

Physicians' offices also are commonly used for mental health problems. Indeed, general practice physicians write the majority of prescriptions for psychotropic medication (Mark, Levit, & Buck, 2009). Given the prominence of medication in treating mental health conditions (see Table 25), data are needed on treating mental health in physicians' offices. In 2008, more than 6 percent of all office visits involved any mental diagnosis, and 3.9 percent involved a primary diagnosis (Table 38). Nonspecialty care physicians also play an important role, with specialties other than psychiatry accounting for 44 percent of visits with a primary mental diagnosis (Table 39) and 63.3 percent of visits with any mental diagnosis (Table 40).

Mental Health Service Capacity

In presenting data on the capacity of mental health treatment specialty and nonspecialty systems, the demographic characteristics of the behavioral health workforce are important to consider because they may affect some patients' experience of treatment. Estimates portray characteristics of clinically trained mental health personnel in terms of their age, sex, and Hispanic origin and race,

by provider type (Table 45). Prior research has identified a demographic mismatch between patients and providers that is larger for behavioral health care than for general medical care (Miranda, McGuire, Williams, & Wang, 2008). This section also illustrates time trends from 1986 to 2004 in the number of mental health organizations with 24-hour hospital/residential treatment settings and the corresponding number of beds relative to the population (Tables 46 and 47).

Evidence on the capacity of nonspecialty service settings includes data on the service capacity of jails, prisons, and correctional facilities (Tables 48 and 49); community health centers (CHCs) (Tables 50, 51, 52, and 53); and clubhouses (Table 54). These service locations often play an important role in mental health treatment. For instance, CHCs are an important part of the safety net for mental health care, and their role is likely to be enhanced under health reform (Lo Sasso & Byck, 2010). Estimates show the growth over time in the proportion of CHCs providing behavioral health services (Table 51) and in the number of specialty mental health and substance abuse encounters at CHCs (Table 53) for the period 1998 through 2007. Many psychiatric patients continue to be seen in general hospital beds ("scatter beds") that are not part of psychiatric units. These discharges are compared with psychiatric unit discharges in terms of various patient, facility, and treatment characteristics. Comparisons are also made between discharges from scatter beds in hospitals with and without psychiatric units (Table 55).

3.1.3 Child Mental Health Services

([Exhibits 10 through 13](#) and [Tables 56 through 66](#))

Because youth populations differ in important ways from adults, their service patterns are presented separately ([Tables 56 to 66](#)). Children and youth may receive mental health treatment across a variety of settings, including education and juvenile justice settings. In 2009, youth were most likely to have received mental health services in either specialty mental health outpatient or education settings. Specifically, 12.0 percent of youth aged 12 to 17 received specialty mental health treatment, with the most common source being outpatient care from a private therapist, psychologist, psychiatrist, social worker, or counselor (9.3 percent) ([Exhibit 12](#) and [Table 56](#)). Also, 12.1 percent received mental health treatment from the education system, and 0.4 percent received treatment from the juvenile justice system ([Exhibit 12](#) and [Table 56](#)).

Specialty Mental Health Services

More than half of children aged 8 to 15 with a mental disorder received some form of mental health treatment in the past year ([Exhibit 10](#) and [Table 57](#)). [Table 57](#) presents the proportion of children aged 8 to 15 with various mental disorders who saw someone at a hospital, clinic, or office because of a mental health problem. Children with anxiety disorders were less likely to receive treatment than children with mood or disruptive behavior disorders. Because attention deficit hyperactivity disorder (ADHD) is much more prevalent among youth, this section presents data on the use of prescription medicine for ADHD among youth aged 2 to 17. In 2007, 4.2 percent of U.S. children were taking prescription medication for ADHD ([Table 58](#)).

Patterns of mental health services for children with emotional disturbance have changed substantially over time, in particular the use of residential treatment centers ([Table 61](#)) and MH/SA medications ([Tables 62 and 63](#)). For instance, time trends from 1996 to 2008 in MH/SA prescription medication fills among youth aged 17 or younger are reported by selected medication classes ([Exhibit 13](#) and [Tables 62 and 63](#)). MH/SA prescription medication fills for children have increased notably since 1996. The rise is driven largely by an increase in the use of stimulant medication, which is likely prescribed for ADHD.

Mental Health Service Capacity for Children

Information on mental health service capacity for children is presented for two specific service systems: residential treatment centers ([Tables 64 and 65](#)) and schools ([Table 66](#)). Information is provided on the number of residential treatment centers for children with emotional disturbance and the number of inpatient beds in State and county psychiatric hospitals among children aged 17 or younger ([Tables 64 and 65](#)). Data are also shown on the percentage of schools that provided various mental health, social, or prevention services in 2006 and the methods they used to deliver those services ([Table 66](#)). The table indicates, for example, that more than 95 percent of schools provided crisis intervention for personal problems. Other common services provided by schools include identification of abuse, identification of family problems, and counseling for emotional or behavioral disorders ([Table 66](#)).

3.1.4 Special Populations

(Tables 67 through 69)

SAMHSA's strategic initiatives highlight the importance of providing support and treatment to America's service men and women, together with their families and communities, and of meeting the behavioral health needs of incarcerated adults and children (SAMHSA, 2011). The final set of tables on providers and settings of care contains estimates on service use in military populations (Tables 67 and 68) and youth in the juvenile justice system (Table 69). Among active duty military in 2008, 8.5 percent reported receiving prescribed medication for depression, anxiety, or sleeping problems; nearly 20 percent received mental health counseling (Table 67). In 2003, 52.7 percent of youth in the juvenile justice system received some form of counseling (Table 69).

3.2 Exhibits

[Exhibits 6–13](#)

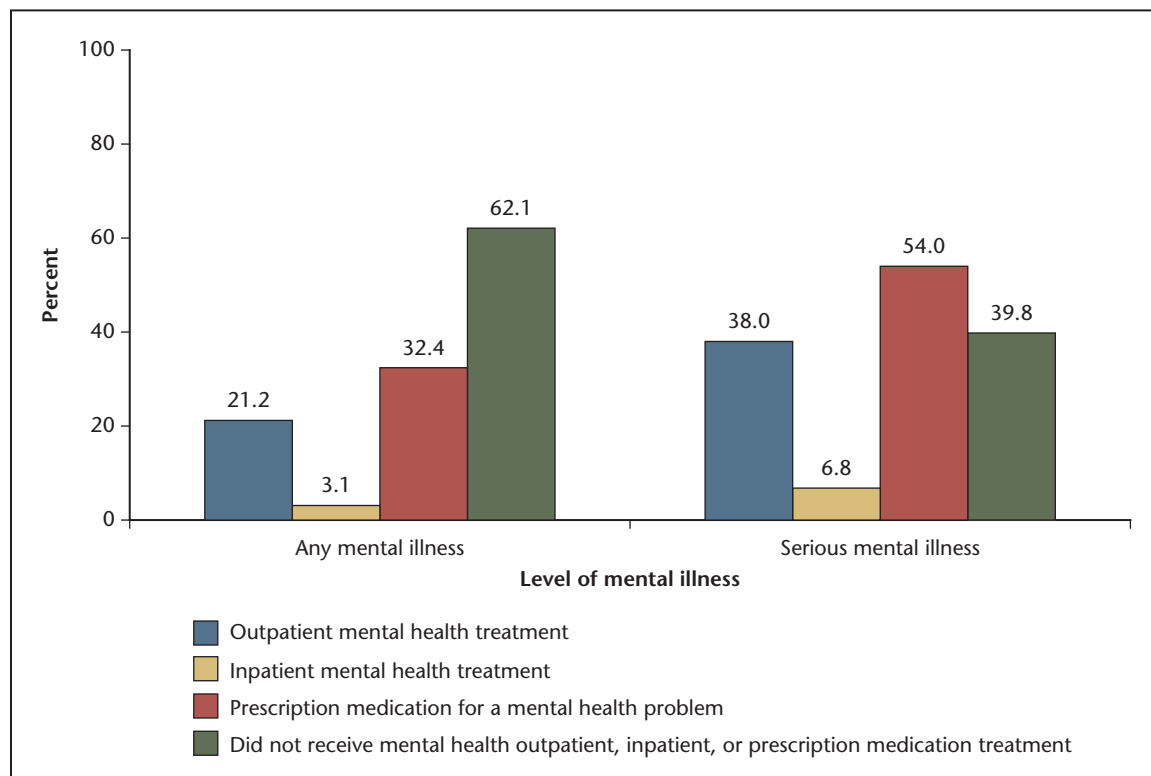
Receipt of Mental Health Treatment by Adults with Any Mental Illness and Serious Mental Illness

A significant proportion of adults with serious mental illness do not report receiving treatment.

People with serious mental illness (SMI) are of particular concern to providers and policy makers. SMI impairs functioning in everyday life and can cause great distress. Treatment for people with SMI is particularly important in aiding recovery. The National Survey on Drug Use and Health (NSDUH) includes questions that assess types of mental health treatment received by U.S. adults. [Exhibit 6](#) describes the types of mental health treatment received by people with any mental illness (AMI), as well as treatment received specifically by people with SMI. Individuals may receive more than one type of treatment. The exhibit shows the following:

- In 2009, individuals with SMI were more likely to receive mental health treatment than individuals with AMI, but both groups were often unlikely to receive any treatment. Among those with AMI in the past year, 62.1 percent (or an estimated 27.9 million people) did not receive treatment. Among those with SMI, 39.8 percent (or an estimated 4.3 million people) did not receive treatment.
- The most common form of mental health treatment for individuals with either AMI or SMI was prescription medication.

Exhibit 6. Percentage of persons aged 18 or older who received mental health treatment in the past year, by mental illness status, United States, 2009



NOTES: Any mental illness (AMI) among adults is defined as persons aged 18 or older who currently or at any time in the past year had a diagnosable mental, behavioral, or emotional disorder, regardless of the level of impairment in carrying out major life activities. AMI includes persons with mental illness having serious, moderate, or mild functional impairment. Serious mental illness (SMI) is a subset of the AMI group. SMI among adults is defined as persons aged 18 or older who currently or at any time in the past year had a diagnosable mental, behavioral, or emotional disorder and resulting in substantial impairment in carrying out major life activities. See Table 24 for more details on the constructs in this exhibit.

Respondents with unknown treatment/counseling information were excluded. Respondents could indicate multiple service sources; thus, these response categories are not mutually exclusive.

SOURCE: National Survey on Drug Use and Health, 2009, Substance Abuse and Mental Health Services Administration, Office of Applied Studies.

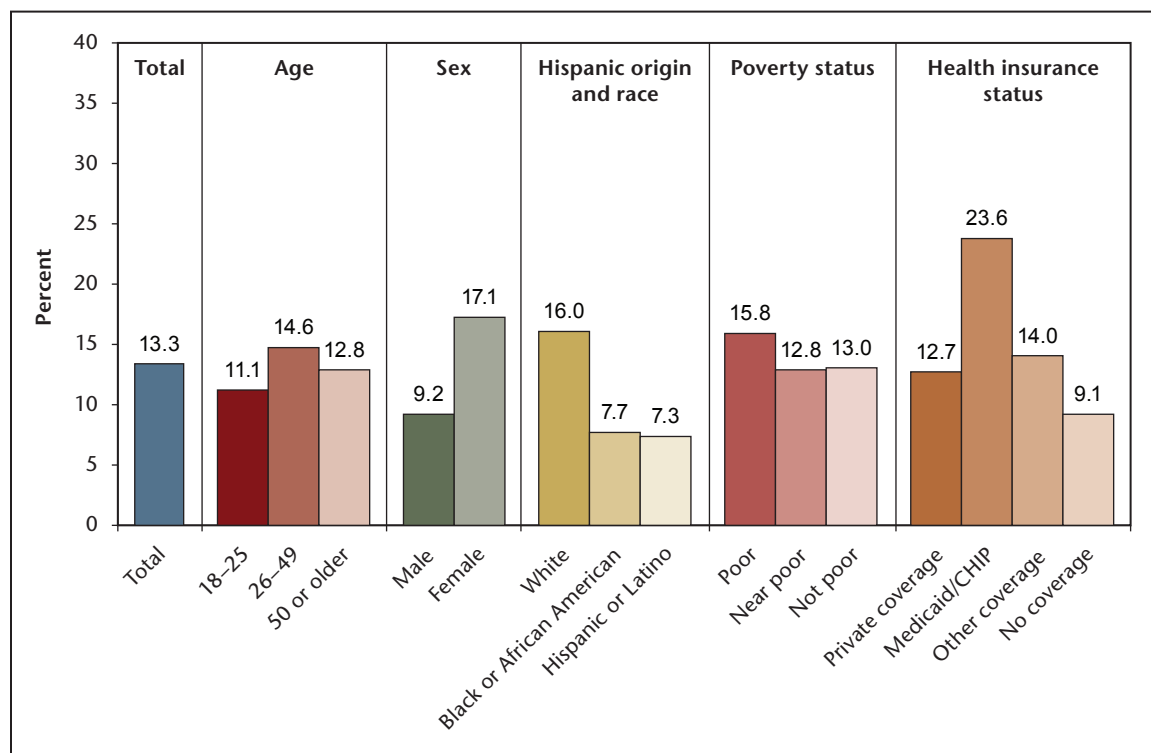
Mental Health Service Use by Key Characteristics

Approximately one in eight adults in the United States received some type of mental health specialty outpatient, inpatient, or prescription medication treatment in the past year.

The receipt of mental health treatment varies by key characteristics of the recipients. [Exhibit 7](#) uses the 2009 National Survey on Drug Use and Health (NSDUH) to show how mental health treatment use for adults varied by important demographic and socioeconomic factors. This exhibit shows adults' report of mental health treatment receipt and provides population estimates not limited to individuals with mental health problems. The exhibit shows the following:

- A higher proportion of women than men received mental health treatment in the past year (17.1 versus 9.2 percent, respectively).
- Among the three Hispanic origin and race groups examined, non-Hispanic whites had the highest proportion of treatment receipt (16.0 percent).
- Adults who were covered by Medicaid or the Children's Health Insurance Program (CHIP) had particularly high rates of mental health treatment receipt (23.6 percent) compared with adults covered by other types of insurance (14.0 percent for some other form of coverage).

Exhibit 7. Percentage of persons aged 18 or older who received mental health treatment or counseling in the past year, by selected characteristics, United States, 2009



NOTES: Mental health treatment or counseling is defined as having received outpatient care or inpatient care or having used prescription medication for problems with emotions, nerves, or mental health. Respondents with unknown treatment/counseling information were excluded.

Poverty status is based on respondent age, family income, family size, and composition using the U.S. Census Bureau's poverty thresholds. "Poor" persons are defined as living in households where the family income is less than 100 percent of the U.S. Census poverty threshold. "Near poor" persons have incomes of 100 percent to less than 200 percent of the poverty threshold. "Not poor" persons have incomes that are 200 percent of the poverty threshold or greater.

CHIP is the Children's Health Insurance Program. Respondents could indicate multiple types of health insurance; thus, these response categories are not mutually exclusive. See Table 25 for more details on the constructs in this exhibit.

SOURCE: National Survey on Drug Use and Health, 2009, Substance Abuse and Mental Health Services Administration, Office of Applied Studies.

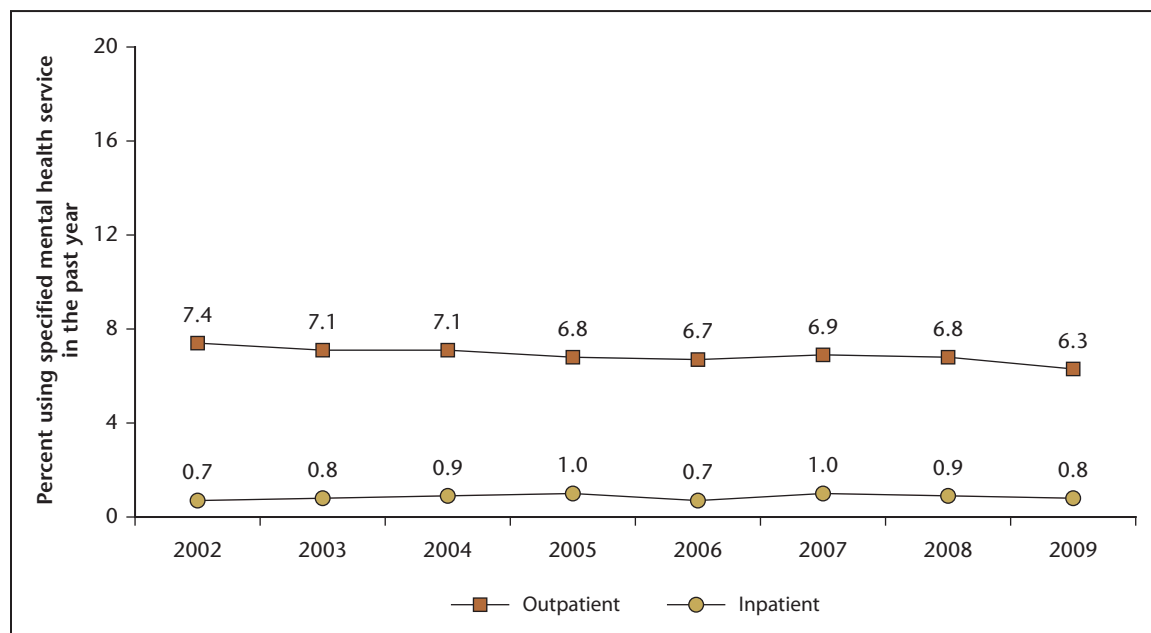
Adults Using Outpatient and Inpatient Mental Health Treatment

Since 2002, adult use of outpatient mental health treatment has declined slightly, while inpatient treatment use has remained stable.

Mental health treatment may include outpatient and inpatient care. It is important to understand the degree to which both types of treatment have changed over time. The National Survey on Drug Use and Health (NSDUH) includes questions that assess the types of mental health treatment received by U.S. adults. [Exhibit 8](#) describes the proportion of adults between 2002 and 2009 using outpatient or inpatient mental health treatment. This exhibit does not include estimates of adults' self-reported use of prescription medication for a mental health problem. The exhibit shows the following:

- Over the 8-year period studied, the proportion of adults using outpatient treatment declined from 7.4 percent in 2002 to 6.3 percent in 2009.
- Use of inpatient treatment remained stable at 1 percent or less of the U.S. adult population.

Exhibit 8. Percentage of persons aged 18 or older who received mental health treatment or counseling in the past year, United States, 2002–2009



NOTES: Respondents could indicate multiple service sources; thus, these response categories are not mutually exclusive. Outpatient treatment includes any mental health treatment or counseling received at an outpatient mental health clinic or center; the office of a private therapist, psychologist, psychiatrist, social worker, or counselor that was not part of a clinic; a doctor's office that was not part of a clinic; an outpatient medical clinic; a partial day hospital or day treatment program; or some other place. Inpatient treatment includes a stay of overnight or longer in a hospital or other facility for mental health problems. See Tables 25 and 26 for more details on the constructs in this exhibit.

SOURCE: National Survey on Drug Use and Health, 2002–2009, Substance Abuse and Mental Health Services Administration, Office of Applied Studies.

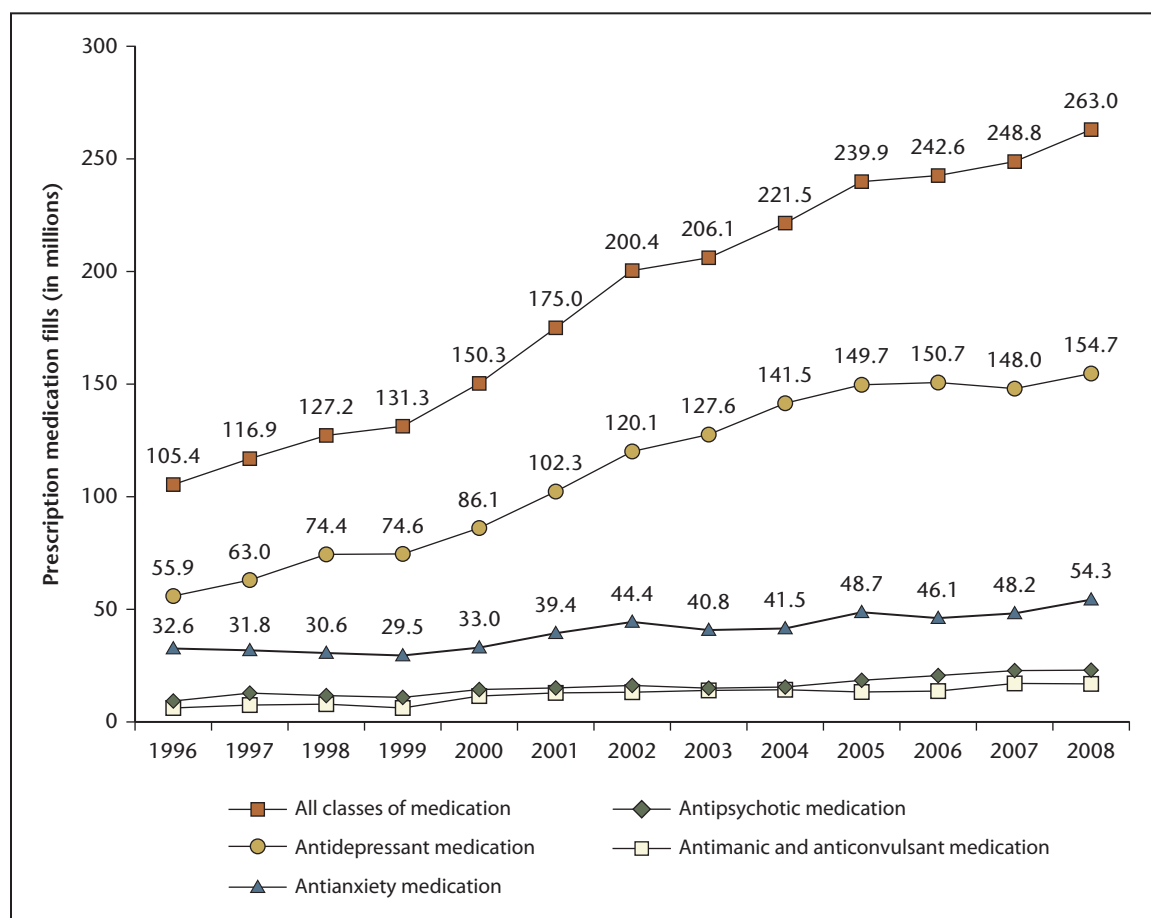
Mental Health/Substance Abuse Medication Fills among Adults

The rise from 1996 to 2008 in mental health/substance abuse medication fills for adults was driven largely by antidepressant medication.

In the past decade, medication has become an increasingly prominent part of treatment for behavioral health problems. One way to measure the use of medication is to examine data from pharmacies on the number of prescriptions being purchased or filled. The Medical Expenditure Panel Survey (MEPS) includes a component that gathers data about prescription medication fills directly from pharmacies across the United States. This data collection method makes MEPS a particularly reliable source of information for assessing trends in psychotropic medication. [Exhibit 9](#) shows, for four major classes of psychotropic medication, the extent of the increase in prescription fills from 1996 to 2008. The measure includes first-time purchases and refills. The exhibit shows the following:

- Throughout the period studied, antidepressant medication was the most common class of medication filled, and antianxiety medication was the second most common.
- The increase in medication fills over the period was driven largely by antidepressant medication. This class of medication had the largest increase in medication fills over the period, from 55.9 million fills in 1996 to 154.7 million fills in 2008.
- Fills for other classes of medications also increased over the period studied. For example, antianxiety medications—the second most common psychotropic medication—rose from 32.6 million in 1996 to 54.3 million in 2008. In 1996, the number of antianxiety medication fills was about 60 percent of the number of antidepressant fills; by 2008, that proportion fell to about 30 percent.

Exhibit 9. Mental health/substance abuse medication fills among persons aged 18 or older, United States, 1996–2008



NOTES: For legibility, data labels for antipsychotic and antimanic medications are suppressed.

Antianxiety medications include sedative and hypnotic medications.

See Appendix C for complete list of medications. Categorization of medications follows that of the National Institute of Mental Health (<http://www.nimh.nih.gov/health/publications/mental-health-medications/alphabetical-list-of-medications.shtml>). See Tables 30 and 31 for more details on the constructs in this exhibit.

SOURCE: Medical Expenditure Panel Survey, 1998–2008, Center for Financing, Access, and Cost Trends, Agency for Healthcare Research and Quality.

Zuvekas, S. H. (2005). Prescription drugs and the changing patterns of treatment for mental disorders, 1996–2001. *Health Affairs*, 24(1), 195–205.

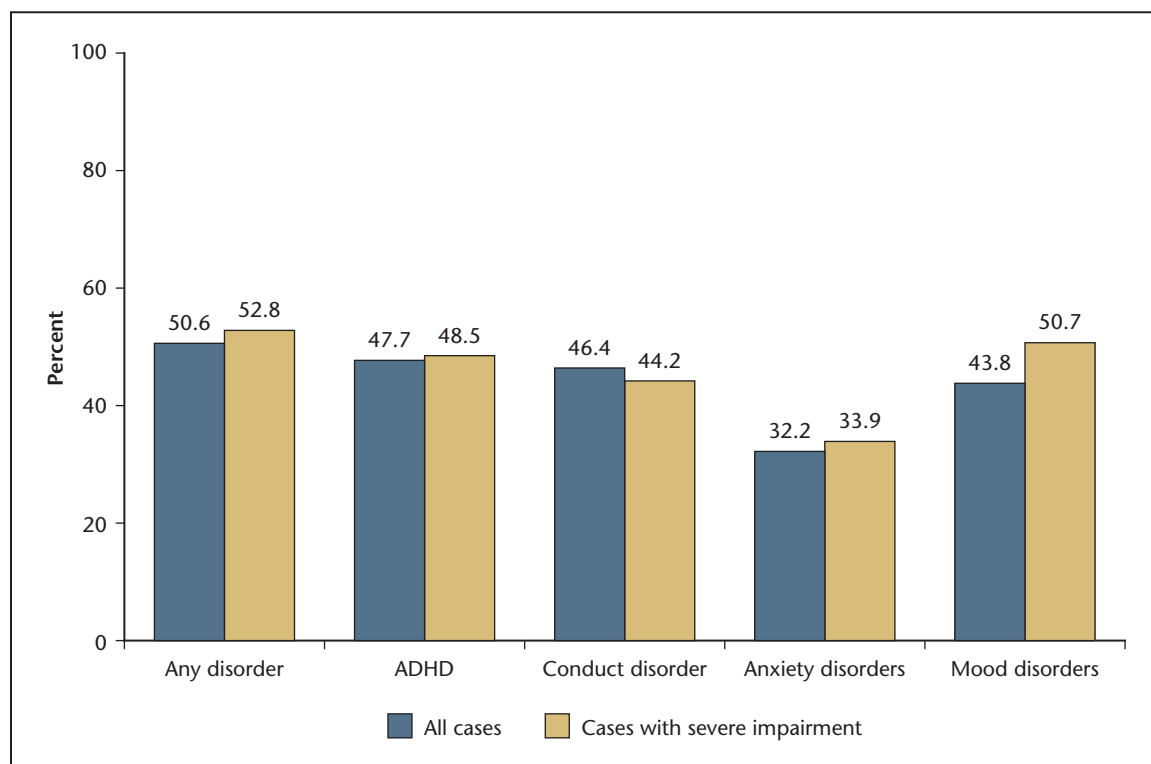
Mental Health Service Receipt by Children and Youth Aged 8 to 15 with Selected Mental Disorders

More than half of children aged 8 to 15 with a selected mental disorder received any mental health treatment in the past year.

Children and youth with mental disorders are vulnerable to experiencing problems at home, with peers, and in school. Having friends, academic achievement, and strong family relationships are critical to positive child development and the successful transition to early adulthood. This makes early mental health treatment engagement for children with emotional and behavioral disorders particularly important, especially among children also experiencing severe functional impairment. Findings from the National Health and Nutrition Examination Survey (NHANES) as reported in Merikangas et al. (2010) show the percentage of children aged 8 to 15 with particular past year emotional or behavioral disorders who received mental health treatment. This NHANES-based study included 3,042 participants aged 8 to 15 who had participated in one of the NHANES surveys between 2001 and 2004. This study showed the following:

- About half of children aged 8 to 15 with at least one of the mental disorders assessed received mental health services in the past year.
- Children with mental disorders with severe impairment were no more likely to have received a mental health service in the past year than children with any emotional or behavioral disorder (with or without severe impairment).
- Children with anxiety disorders were the least likely to have received treatment. Only one in three children with anxiety disorders, with or without severe impairment (32.2 percent and 33.9 percent, respectively), reported receiving treatment in the past year.

Exhibit 10. Percentage of persons aged 8 to 15 with selected mental disorders who received mental health treatment in the past year, by level of impairment, United States, 2001–2004



NOTES: Mental disorders were assessed using a structured diagnostic interview that contained modules. Disorder with severe impairment indicates two intermediate ratings or one severe rating on the six impairment questions within a diagnostic module. See Table 57 for more details on the constructs in this exhibit.

ADHD = attention deficit hyperactivity disorder.

SOURCE: Merikangas, K. R., He, J.-P., Brody, D., Fisher, P. W., Bourdon, K., & Koretz, D. S. (2010). Prevalence and treatment of mental disorders among US children in the 2001–2004 NHANES. *Pediatrics*, 125(1), 75–81.

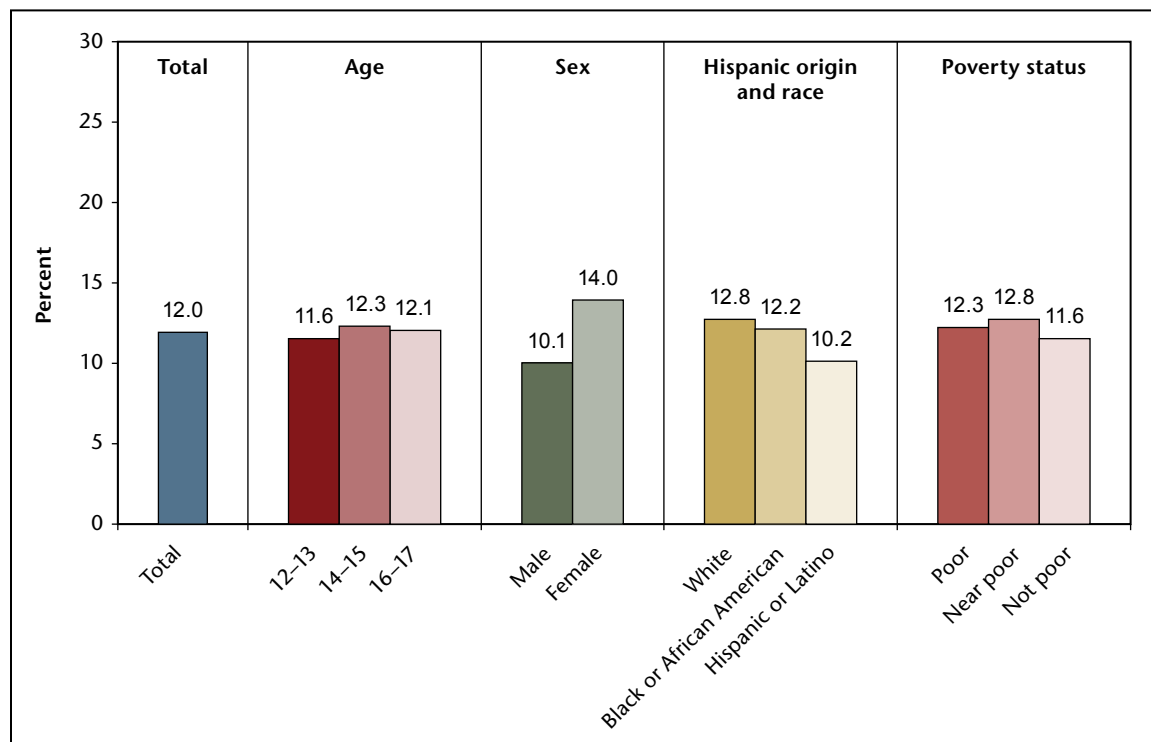
Youth Receiving Specialty Mental Health Treatment in the Past Year by Key Characteristics

Female youth were more likely to have received specialty mental health treatment than male youth.

Use of mental health treatment among youth varies according to some key characteristics, particularly sex. Use of mental health treatment among youth, however, does not vary significantly by other characteristics, such as age and poverty. The National Survey on Drug Use and Health (NSDUH) includes questions that ask youth aged 12 to 17 to self-report on their receipt of specific types of specialty mental health treatment. Based on NSDUH data from 2009, mental health treatment use among youth aged 12 to 17 varied by important demographic and socioeconomic factors ([Exhibit 11](#)). The exhibit shows the following:

- Female youth were more likely to have received specialty mental health treatment in the past year than male youth (14.0 percent versus 10.1 percent). This difference was driven largely by the higher likelihood for female youth to receive specialty outpatient services. Use of specialty inpatient mental health treatment did not differ significantly by sex.
- Use of specialty mental health treatment by youth did not differ significantly by age, Hispanic origin and race, or poverty status.

Exhibit 11. Percentage of persons aged 12 to 17 who received any specialty mental health treatment in the past year, by selected characteristics, United States, 2009



NOTES: Specialty mental health treatment includes outpatient mental health treatment or inpatient or residential care.

Poverty status is based on respondent age, family income, family size, and composition using the U.S. Census Bureau's poverty thresholds. "Poor" persons are defined as living in households where the family income is less than 100 percent of the U.S. Census poverty threshold. "Near poor" persons have incomes of 100 percent to less than 200 percent of the poverty threshold. "Not poor" persons have incomes that are 200 percent of the poverty threshold or greater.

Respondents with unknown receipt of mental health service information were excluded. Respondents could indicate multiple service sources; thus, the response categories are not mutually exclusive. See Table 59 for more details on the constructs in this exhibit.

SOURCE: National Survey on Drug Use and Health, 2009, Substance Abuse and Mental Health Services Administration, Office of Applied Studies.

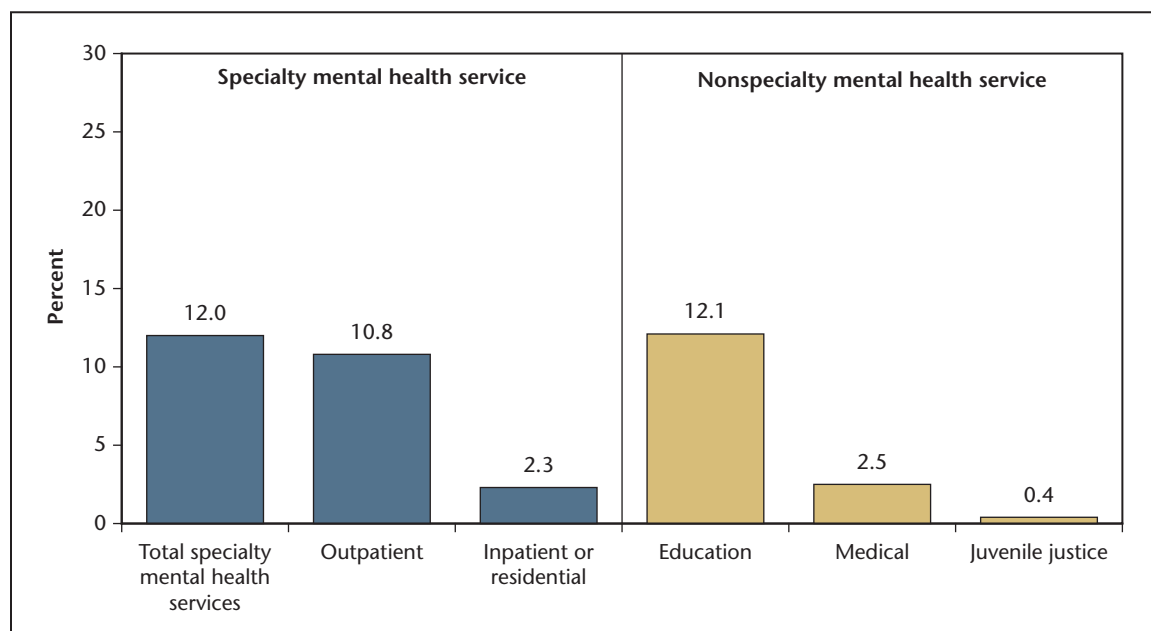
Mental Health Service Use by Youth Aged 12 to 17 by Type of Treatment and Treatment Setting

Youth are most likely to have received mental health services in either specialty mental health outpatient or education settings.

Children and youth with emotional or behavioral health disorders receive mental health treatment in a variety of settings, including specialty mental health and nonspecialty settings. Nonspecialty settings, such as schools or primary care, are particularly important service settings to both identify emotional and behavioral health problems in childhood and provide services to children and youth with emotional or behavioral health disorders. The National Survey on Drug Use and Health (NSDUH) includes questions that assess the types of specialty and nonspecialty mental health treatment received by U.S. youth aged 12 to 17. Youth are asked to self-report on each type of treatment received in the past year and can indicate more than one type of treatment. [Exhibit 12](#) presents data on mental health treatment for youth aged 12 to 17:

- In 2009, 12.0 percent of U.S. youth aged 12 to 17 reported using specialty mental health services in the past year, including services in inpatient (including residential treatment and treatment through therapeutic foster care) and outpatient mental health treatment locations.
- Approximately the same percentage of youth (12.1 percent) reported receiving some mental health–related service in an education setting. This included talking with a school social worker, psychologist, or counselor; receiving special education services; or being placed in a special school or program for students with emotional or behavioral problems.
- Of the 2.9 million youth who received any specialty mental health services in the past year, the majority (10.8 percent or 2.6 million) received outpatient treatment services and 2.3 percent (0.6 million) received inpatient services with some of these youth receiving both outpatient and inpatient treatment services.

Exhibit 12. Percentage of persons aged 12 to 17 who received mental health treatment in the past year, by type of treatment and treatment setting, United States, 2009



NOTES: Receipt of mental health services for persons aged 12 to 17 is defined as having received treatment/ counseling for emotional or behavioral problems not caused by drug or alcohol use. Respondents with unknown receipt of mental health service information were excluded. Respondents could indicate multiple service sources; thus, the response categories are not mutually exclusive. See Table 59 for more details on the constructs in this exhibit.

SOURCE: National Survey on Drug Use and Health, 2009, Substance Abuse and Mental Health Services Administration, Office of Applied Studies.

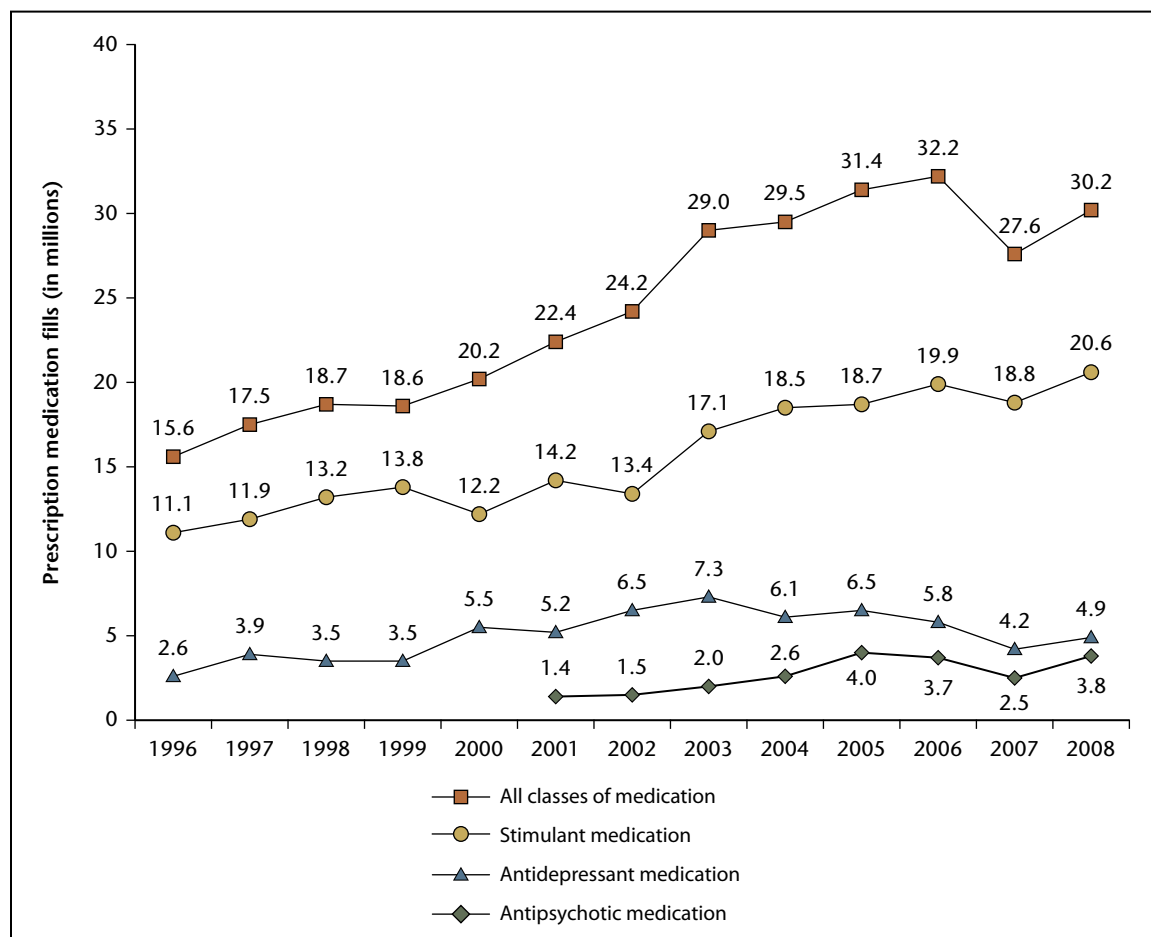
Mental Health/Substance Abuse Medication Fills among Children

The increase from 1996 to 2008 in psychotropic medication fills for children was driven largely by an increase in the use of stimulant medication.

Psychotropic medication is an important part of mental health treatment for children, and the role of medication in treatment has become more prominent in recent years. Data from pharmacy records on the number of prescriptions being purchased or filled provide one useful metric to monitor prescription medication use. The Medical Expenditure Panel Survey (MEPS) includes a component that gathers data about prescription medication fills directly from pharmacies across the United States. This data collection method makes MEPS a particularly reliable source of information for assessing trends in psychotropic medication. [Exhibit 13](#) illustrates the increase in psychotropic prescription medication fills for three major classes of psychotropic medication from 1996 to 2008: antidepressant, antipsychotic, and stimulant. These prescription fills were specifically for the treatment of a childhood emotional or behavioral health problem. The measure includes first-time purchases and refills. The exhibit shows the following:

- The number of psychotropic medication fills for children nearly doubled between 1996 and 2008.
- Consistently over time, stimulant medication was the most common class of examined psychotropic medication filled. Antidepressant medication was the second most common.
- The increase in psychotropic medication fills from 1996 to 2008 was driven largely by stimulant medications.
- Over time, the number of antidepressant medication fills has been about one quarter of the number of stimulant fills.
- Antipsychotic medication use appears to have become more prominent over time. Before 2001, data on these fills did not include a sufficient number to be reported reliably for children. In 2001, the first year for which reliable estimates could be obtained, the number of fills was 1.4 million. By 2005, that number had risen to 4 million, and the number remained about or just below that level until 2008. Evidence elsewhere in this volume (see [Exhibit 20](#)) suggests that changes in fills for antipsychotic medication are driven by the number of people being prescribed medication, rather than the number of fills being prescribed per person.

Exhibit 13. Trends in mental health/substance abuse medication fills for persons aged 17 or younger, by medication class, United States, 1996–2008



NOTES: Estimates for antipsychotic medication before 2001 are considered unreliable.

Antianxiety medications include sedative and hypnotic medications.

See Appendix C for complete list of medications. Categorization of medications follows that of the National Institute of Mental Health (<http://www.nimh.nih.gov/health/publications/mental-health-medications/alphabetical-list-of-medications.shtml>). See Tables 62 and 63 for more details on the constructs in this exhibit.

SOURCES: Medical Expenditure Panel Survey, 1996–2008, Center for Financing, Access, and Cost Trends, Agency for Healthcare Research and Quality.

Zuvekas, S. H. (2005). Prescription drugs and the changing patterns of treatment for mental disorders, 1996–2001. *Health Affairs*, 24(1), 195–205.

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4. PAYERS AND PAYMENT MECHANISMS

4.1 Narrative

4.1.1 Overview

Funding for mental health care has changed considerably in the past decade, and change seems likely to continue. Ongoing budget crises in many States threaten the availability of some services for many vulnerable populations. For people with third-party coverage—such as private insurance, Medicare, and Medicaid—recent parity legislation is part of a series of legislative attempts to make the coverage for behavioral health care equivalent to that for general medical care. Forthcoming health care reform is likely to provide third-party coverage for behavioral health services for millions of people who were not covered previously. In the face of such changes, decision makers who must budget and plan the provision of care need access to data that monitor how much is spent on mental health services, from what sources, and on what services.

This section provides national information on mental health expenditures and how these expenditures relate to expenditures on all health care, as well as information on the major funders, including private insurance, Medicare, Medicaid, the U.S. Department of Veterans Affairs (VA), and State Mental Health Agencies (SMHAs). The data directly address the Substance Abuse and Mental Health Services Administration's

(SAMHSA's) strategic initiative Data, Outcomes, and Quality, which is intended to improve the accessibility of mental health information for staff, stakeholders, funders, and policy makers (SAMHSA, 2011).

4.1.2 Mental Health Expenditures: Overview (*Exhibits 14 through 18 and Tables 70 through 77*)

The exhibits and tables on mental health expenditures begin with a broad overview of mental health expenditures at the national level from 1986 to 2005. Data on U.S. mental health and all health expenditures are from the SAMHSA Spending Estimates Project (SAMHSA, 2010). The estimates are developed to mirror the National Health Expenditure products of the Centers for Medicare & Medicaid Services (CMS) and thus are developed using many of the same data sources, methods, and definitions (CMS, 2011). In keeping with previous volumes of *Mental Health, United States*, dollar estimates are expressed in nominal terms, unless otherwise stated. That is, no adjustment is made for inflation in general prices.

Overall, expenditures on mental health treatment in the United States were about \$113 billion in 2005, which is about 6.1 percent of the total U.S. expenditures on all types of health care (Tables 70 and 71). Mental health expenditures by all types of

payer sources increased from 1986 to 2005, but as a share of all health expenditures, mental health expenditures declined or remained relatively stable across all types of payers (Tables 70 and 71).

From 1986 to 2005, there were substantial changes in the distribution of mental health expenditures across provider type and by payer. More was spent on specialty mental health providers than nonspecialty providers from 1986 through 2005 (Exhibit 15 and Table 72). However, specialty care as a percentage of all mental health expenditures decreased over this period. During this same period, the share of mental health expenditures accounted for by prescription medications increased from 7.4 percent in 1986 to 26.6 percent in 2005. The main changes in the distribution of expenditures for mental health care by payer included the increase in the share of expenditures by private insurance and Medicaid and the decrease in the share of expenditures by other State and local sources (Exhibit 18 and Table 75). Finally, the share of total mental health expenditures on inpatient mental health services decreased from 1986 to 2005, while the share of outpatient mental health services increased steadily (Tables 76 and 77).

4.1.3 Revenues and Expenditures by Public Funding Source

(Tables 78 through 88)

Nearly 60 percent of all mental health spending is from public funding sources (SAMHSA, 2010). Thus, sources such as Medicare, Medicaid, VA, and SMHAs play a very important role in providing access to mental health treatment. Medicaid alone—which covers qualifying people with lower incomes and with disabilities—accounts for nearly 30 percent of mental health spending.

Tables 78 through 81 present estimates based on claims data from Medicaid beneficiaries with fee-for-service coverage in 13 States for the year 2003. These estimates reveal how the use of mental health services under Medicaid varies across population characteristics such as age, sex, Hispanic origin and race, eligibility status, diagnoses, and use of service type. For example, in 2003, 26.8 percent of beneficiaries who were eligible for Medicaid because of a disability used mental health services, compared with only 8.6 percent of adults and 8.2 percent of children (Table 78).

Medicare provides coverage to two vulnerable groups: those who qualify by disability and those aged 65 or older. Although Medicare accounted for 18.3 percent of spending on all medical conditions in 2005 (see Table 75), it accounted for much less (7.7 percent) of mental health spending. Nevertheless, because of the aging U.S. population, data are needed to track spending on mental health conditions. Tables 82 through 84 present estimates on use of mental health services among Medicare beneficiaries.

VA is an important provider of services to veterans, and estimates of VA behavioral health spending are presented in Table 85. From fiscal year (FY) 2008 to FY 2009, the number of specialty mental health encounters increased for inpatient stays and outpatient visits and decreased for residential days.

SMHAs have a particularly important role in funding mental health services. For example, when examining all sources of spending on mental health (e.g., Exhibit 17 and Table 74), nearly 20 percent of all mental health spending in 2005 was through other State and local sources, which includes funds controlled by SMHAs. Because their funding sources are from State funds, such

as general funds, SMHA funds are at risk with the ongoing State budget crises. Tables 86 through 88 illustrate the impact that the recession is having on State financing for behavioral health services. Many States are reporting budget cuts for FY 2010 and FY 2011.

4.1.4 Private Employer-Sponsored Mental Health Benefits

(Tables 89 through 94)

Tables 89 through 91 present information on mental health benefits offered by private employers. Approximately 30 percent of mental health expenditures are funded through private insurance (see Table 75). Private insurance policies can have a significant impact on the amount and types of services that persons with mental health conditions receive.

Information from private employers provides an important baseline against which to evaluate the Mental Health Parity and Addiction Equity Act (MHPAEA). The data in this section come from a variety of sources, including the Bureau of Labor Statistics (Table 89); the Brandeis Health Plan Survey on Alcohol, Drug Abuse, and Mental Health Services (Tables 90 and 91); the Mercer National Survey of Employer-Sponsored Health Plans (Table 92); and the Kaiser Family Foundation/Health Research & Educational Trust Employer Health Benefits Survey (Tables 93 and 94). Data from all sources are consistent in showing that before the MHPAEA, the majority of plans offered by private employers had separate limits on mental health outpatient and inpatient services, such as limits on the number of outpatient visits and inpatient days.

4.1.5 Mental Health Prescription Medication Use

(Exhibits 19 and 20 and Tables 95 and 96)

For the past decade, psychotropic medications have been used increasingly to treat mental health conditions. The final set of exhibits and tables ([Exhibits 19 and 20](#) and Tables 95 and 96) presents separate estimates on the use of and spending on psychotropic medication for adults and children. In 2008, about 27 million U.S. adults and 3.5 million children used psychotropic medications ([Exhibits 19 and 20](#) and Tables 95 and 96). Antidepressant medications had the most users and highest expenditures for adults, whereas stimulants had the most users and highest expenditures for children.

4.2 Exhibits

[Exhibits 14–20](#)

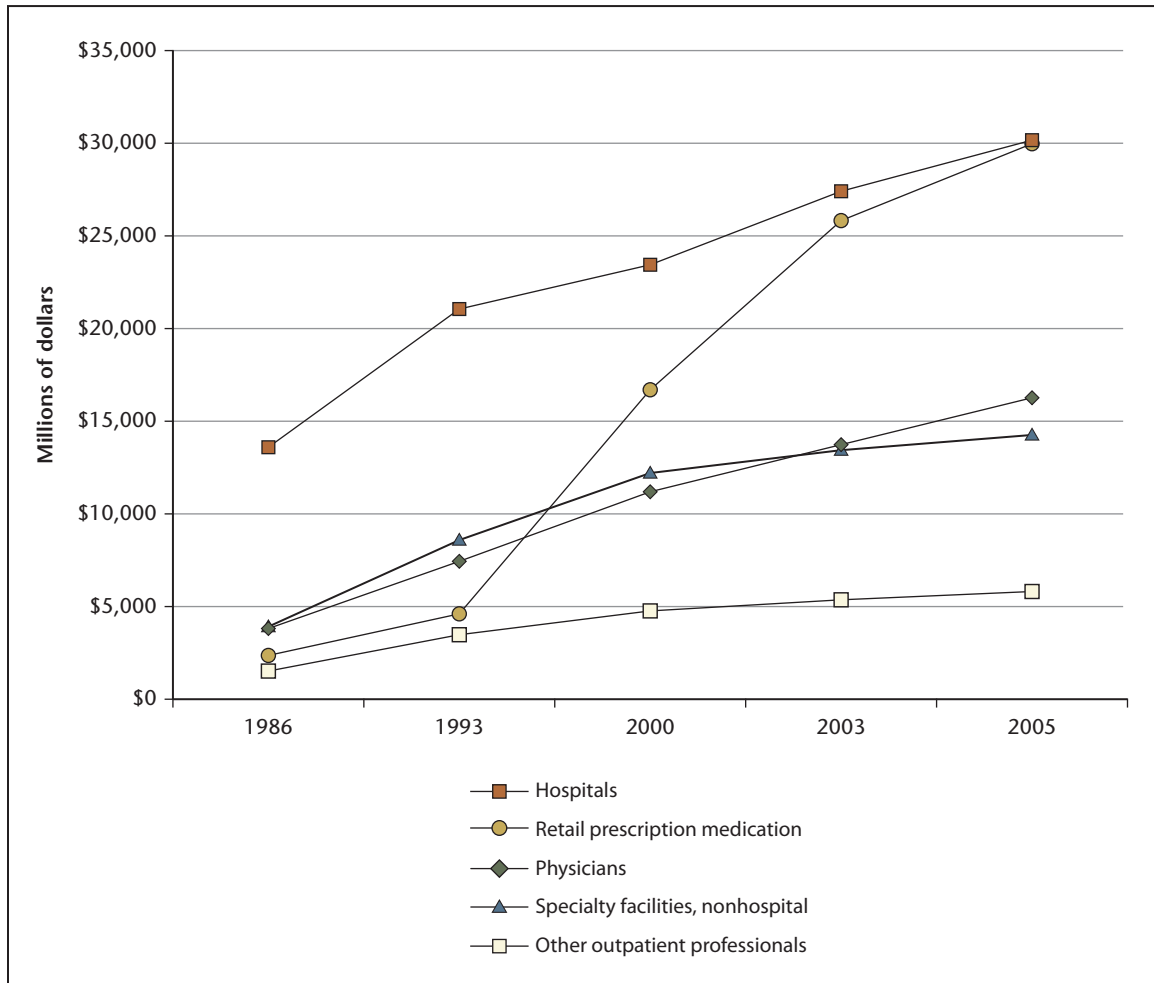
Trends in Expenditures on Mental Health Care by Type of Service

Prescription medication spending has increased faster than any other type of mental health care.

Mental health care is provided by different providers in a number of settings: physicians; other professionals, such as psychologists, counselors, and social workers; hospitals; specialty facilities that are not hospitals, such as residential treatment centers for children; and retail prescription medication. An ongoing Substance Abuse and Mental Health Services Administration (SAMHSA) project provides estimates for mental health and substance use that are similar to the National Health Expenditure estimates (SAMHSA, 2010), which measure spending on health in the United States by type of service delivered and source of funding. Because the estimates used methods that have been consistent and comprehensive for nearly 20 years, they are the most reliable means of examining spending on mental health care over time. [Exhibit 14](#) uses these data to show the following:

- From 1986 to 2005, mental health expenditures increased for all types of providers. In 1986, about \$31 billion was spent on mental health, and in 2005, about \$113 billion was spent on mental health (not shown; see Table 70).
- Hospitals was one of the categories with the largest amount of expenditures over the period studied. From 1986 to 2005, it was the largest category; in 2005, it was approximately the same as retail prescription medication spending.
- Prescription medication spending increased more rapidly than any other category from 1986 to 2005.
- For each year examined, the amount of mental health spending on physicians has been similar to the amount of spending on all specialty facilities that are not part of a hospital, which include organizations providing outpatient and/or residential services or a combination of services to individuals with mental illness or substance use diagnoses. In 2005, about \$15 billion was spent on each of these categories.

Exhibit 14. Mental health expenditures, by type of provider, United States, selected years 1986–2005



NOTES: The data include revisions and may differ from previously published data. Data are based on estimates of national expenditures for mental health services. For the sake of clarity, the exhibit omits data labels and two provider types: freestanding nursing homes and freestanding home health. Estimates are presented in nominal dollars. See Tables 70 and 71 for more details on the constructs in this exhibit.

SOURCE: Substance Abuse and Mental Health Services Administration (SAMHSA). (2010). *National expenditures for mental health services and substance abuse treatment, 1986–2005* (DHHS Publication No. SMA 10-4612). Rockville, MD: Center for Mental Health Services and Center for Substance Abuse Treatment, SAMHSA.

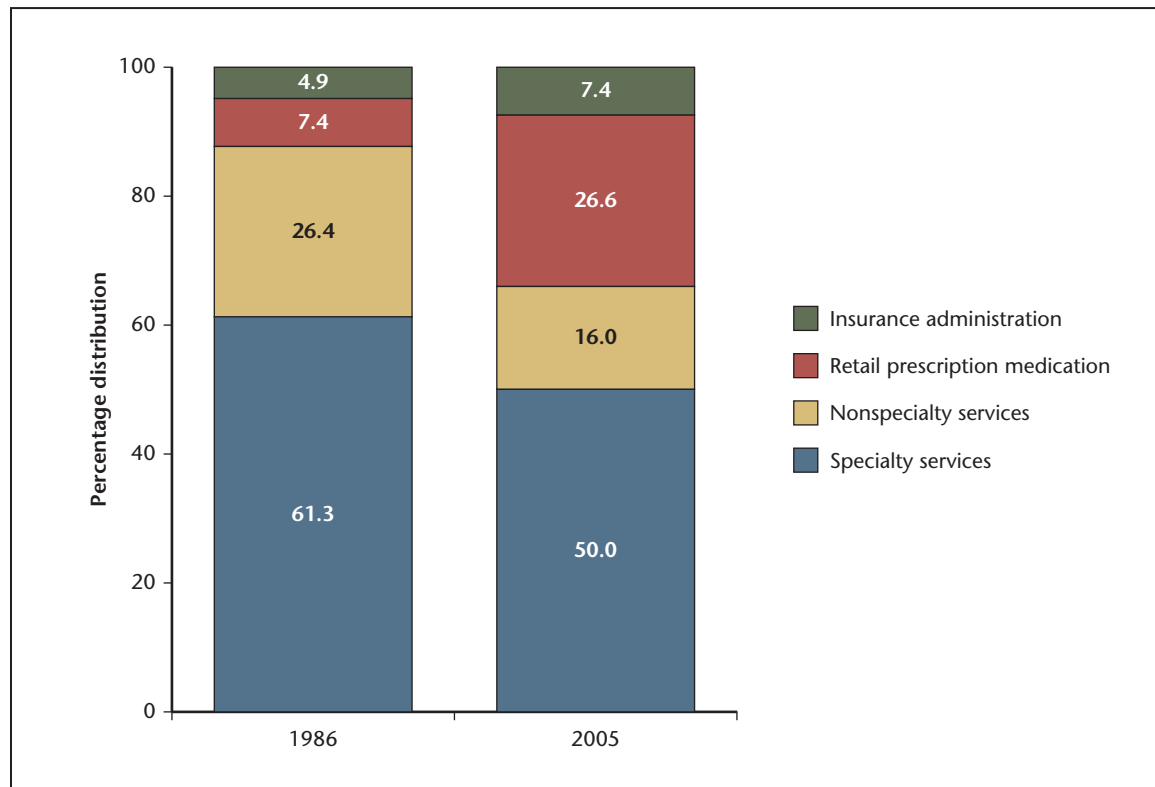
Distribution of Mental Health Care Expenditures by Type of Service

Specialty care and prescription medication accounted for most mental health expenditures in 2005.

In addition to the total dollar amount over time, it is also instructive to examine how the share of broad categories of services has changed over time. [Exhibit 15](#) presents the distribution of mental health expenditures across the main types of services in 1986 and 2005. The data come from an ongoing Substance Abuse and Mental Health Services Administration (SAMHSA) project that provides estimates for mental health and substance use similar to the National Health Expenditure estimates (SAMHSA, 2010). The exhibit shows the following:

- In 2005, specialty services accounted for the largest share (50.0 percent) of spending on mental health.
- However, between 1986 and 2005, the share of mental health spending on specialty services diminished proportionately. In 1986, specialty services accounted for 61.3 percent of mental health spending.
- The share of expenditures for prescription medication increased proportionately from 7.4 percent in 1986 to 26.6 percent in 2005.
- The share of expenditures for insurance administration remained relatively stable over the period studied (between 4.9 and 7.4 percent).

Exhibit 15. Distribution of mental health expenditures, by type of service, United States, 1986 and 2005



NOTES: The data include revisions and may differ from previously published data. Data are based on national expenditures for mental health services. See Table 72 for more details on the constructs in this exhibit.

SOURCE: Substance Abuse and Mental Health Services Administration (SAMHSA). (2010). *National expenditures for mental health services and substance abuse treatment, 1986–2005* (DHHS Publication No. SMA 10-4612). Rockville, MD: Center for Mental Health Services and Center for Substance Abuse Treatment, SAMHSA.

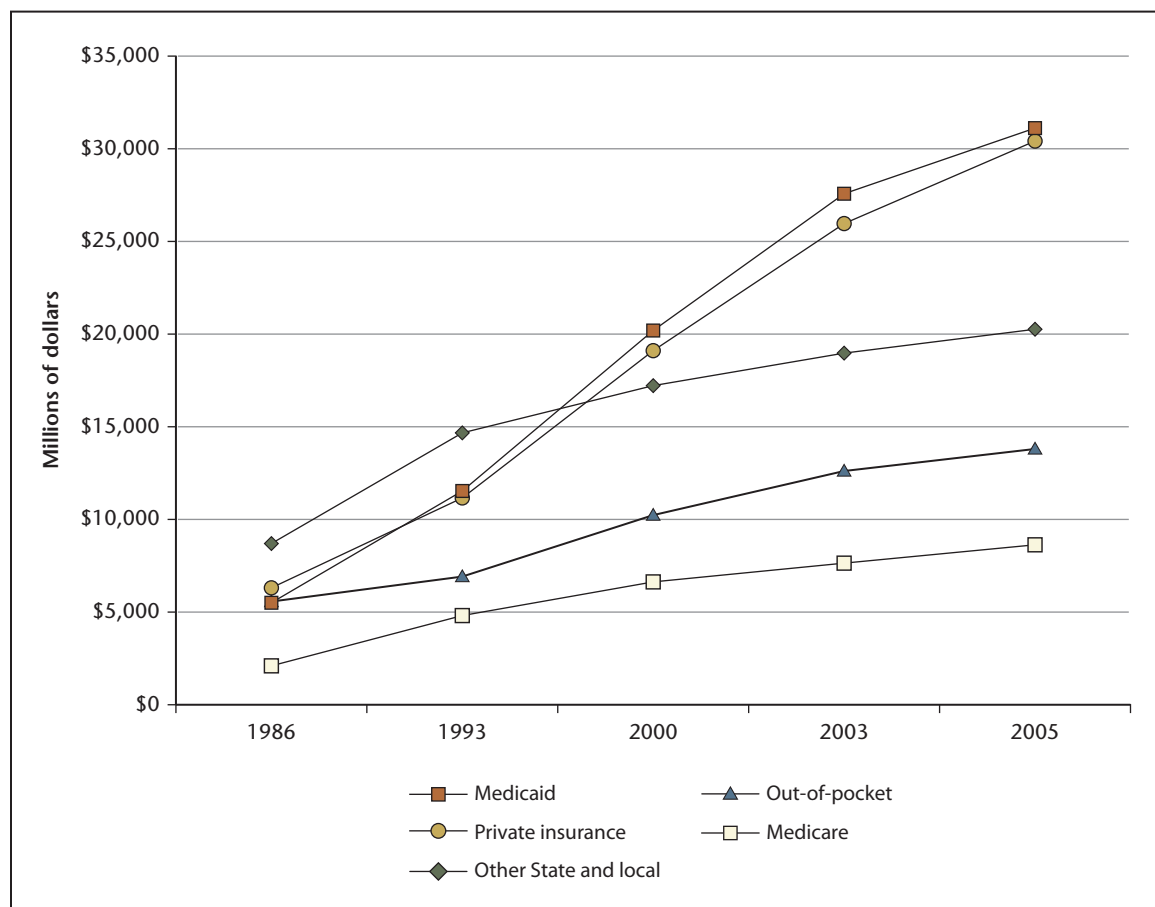
Trends in Mental Health Expenditures by Payer

Between 1986 and 2005, there were particularly large increases in spending on private insurance and Medicaid.

Mental health care is financed through a variety of private and public sources. [Exhibit 16](#) describes mental health expenditures by payer, including private insurance and several types of public funding sources. Private payers include insurance, usually through an employer, and out-of-pocket payments. Public payers include Medicare, Medicaid, other Federal, and other State and local sources. The data come from a Substance Abuse and Mental Health Services Administration (SAMHSA) project that provides estimates for mental health and substance use similar to the National Health Expenditure estimates (SAMHSA, 2010). The exhibit shows the following:

- Mental health expenditures increased for every category of payer between 1986 and 2005.
- Between 1986 and 2005, there were particularly large increases in spending for private insurance and Medicaid. These two sources of payment each accounted for about \$30 billion in mental health expenditures in 2005 compared with about \$6 billion in 1986.
- In the 1980s and 1990s, other State and local government spending was the largest single source of spending on mental health care. By 2005, this source was the third largest, behind private insurance and Medicaid.
- Medicare spending on mental health services has been lower than out-of-pocket spending. Out-of-pocket spending refers to direct spending by consumers for health care services that is not covered by insurance, such as a co-payment. In 2005, Medicare spending was about \$9 billion and out-of-pocket spending was about \$14 billion.

Exhibit 16. Mental health expenditures, by payer, United States, selected years 1986–2005



NOTES: The data include revisions and may differ from previously published data. Data are based on national expenditures for mental health services. For the sake of clarity, the exhibit omits data labels and two sources of expenditures: other private and other Federal (which includes SAMHSA block grants). Estimates are presented in nominal dollars. See Table 73 for more details on the constructs in this exhibit.

SOURCE: Substance Abuse and Mental Health Services Administration (SAMHSA). (2010). *National expenditures for mental health services and substance abuse treatment, 1986–2005* (DHHS Publication No. SMA 10-4612). Rockville, MD: Center for Mental Health Services and Center for Substance Abuse Treatment, SAMHSA.

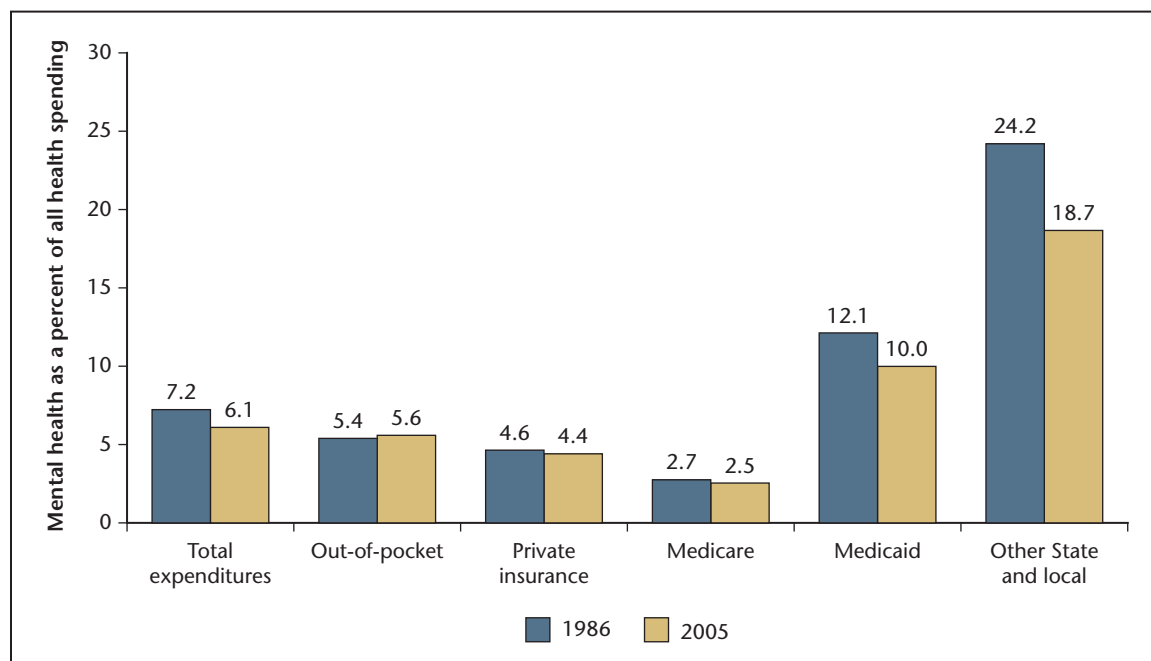
Trends in Mental Health Expenditures as a Percentage of All Health Expenditures by Payer

Between 1986 and 2005, total mental health expenditures declined as a share of all health expenditures.

Previous exhibits have used Substance Abuse and Mental Health Services Administration (SAMHSA) data to show how mental health expenditures have increased between 1986 and 2005 ([Exhibits 14](#) and [15](#)). The data come from a SAMHSA project that provides estimates for mental health and substance use similar to the National Health Expenditure estimates (SAMHSA, 2010), which is one of the most reliable sources for examining spending on mental health care over time. The exhibit shows the following:

- As a share of all health expenditures, mental health expenditures declined or remained relatively stable from 1986 to 2005 across all types of payers.
- Between 1986 and 2005, the proportion of all health expenditures accounted for by mental health remained the same for three categories of payer: out-of-pocket, private insurance, and Medicare.
- The share of all health expenditures accounted for by mental health decreased for Medicaid expenditures from 12.1 percent in 1986 to 10.0 percent in 2005.
- The share of all health expenditures accounted for by mental health decreased the most in the other State and local category from 24.2 percent in 1986 to 18.7 percent in 2005.

Exhibit 17. Mental health expenditures as a share of all health expenditures, by payer, United States, 1986 and 2005



NOTES: The data include revisions and may differ from previously published data. Data are based on national expenditures for mental health services. See Table 74 for more details on the constructs in this exhibit.

SOURCE: Substance Abuse and Mental Health Services Administration (SAMHSA). (2010). *National expenditures for mental health services and substance abuse treatment, 1986–2005* (DHHS Publication No. SMA 10-4612). Rockville, MD: Center for Mental Health Services and Center for Substance Abuse Treatment, SAMHSA.

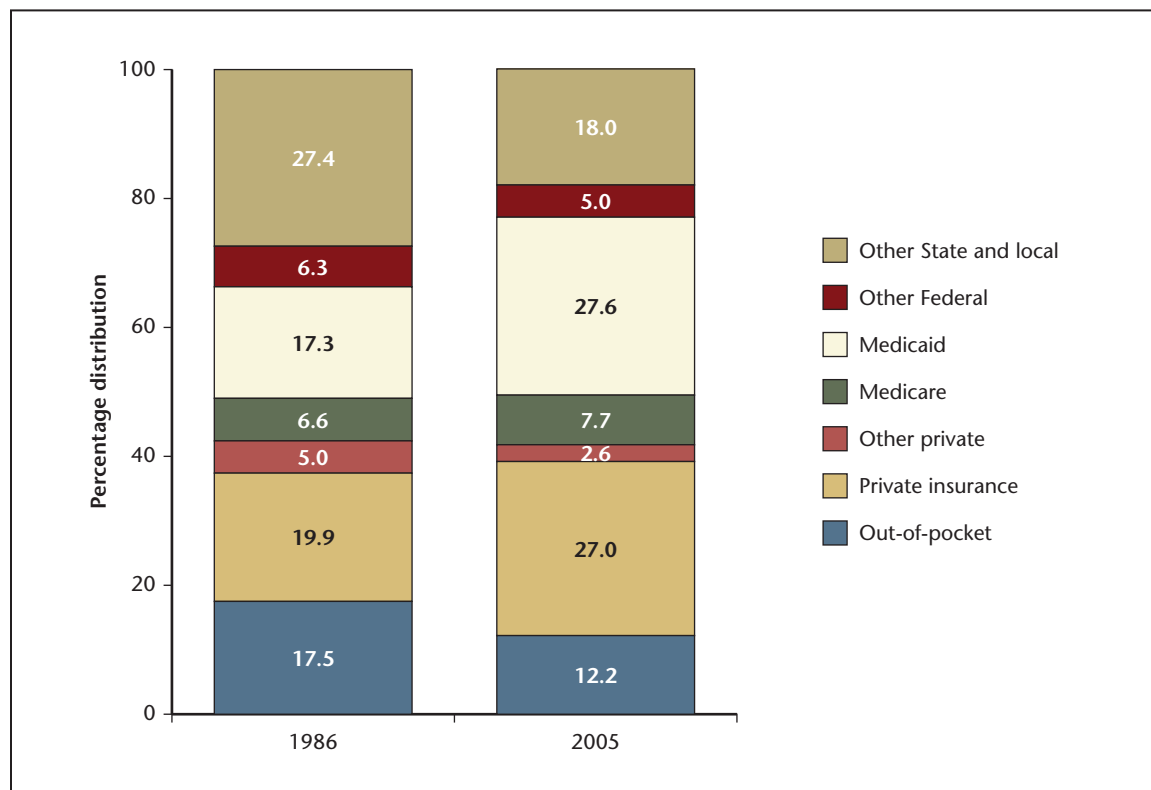
Distribution of Mental Health Expenditures by Payer

Medicaid and private insurance accounted for the largest share of mental health expenditures in 2005.

The role that different payers play in financing mental health spending has changed over time. [Exhibit 18](#) displays the percentage distribution of mental health expenditures accounted for by payer type. The data come from an ongoing Substance Abuse and Mental Health Services Administration (SAMHSA) project to produce estimates on national spending on mental health (SAMHSA, 2010). The exhibit shows the following:

- In 2005, Medicaid and private insurance accounted for the largest share of mental health expenditures—just under 30 percent of total mental health expenditures.
- Between 1986 and 2005, the share of mental health expenditures accounted for by Medicaid and private insurance grew proportionately.
- In the 1980s, State and local government sources accounted for the largest proportion of mental health expenditures, but the share diminished proportionately over time.

Exhibit 18. Distribution of mental health expenditures, by payer, United States, 1986 and 2005



NOTES: The data include revisions and may differ from previously published data. Data are based on national expenditures for mental health services. See Table 75 for more details on the constructs in this exhibit.

SOURCE: Substance Abuse and Mental Health Services Administration (SAMHSA). (2010). *National expenditures for mental health services and substance abuse treatment, 1986–2005* (DHHS Publication No. SMA 10-4612). Rockville, MD: Center for Mental Health Services and Center for Substance Abuse Treatment, SAMHSA.

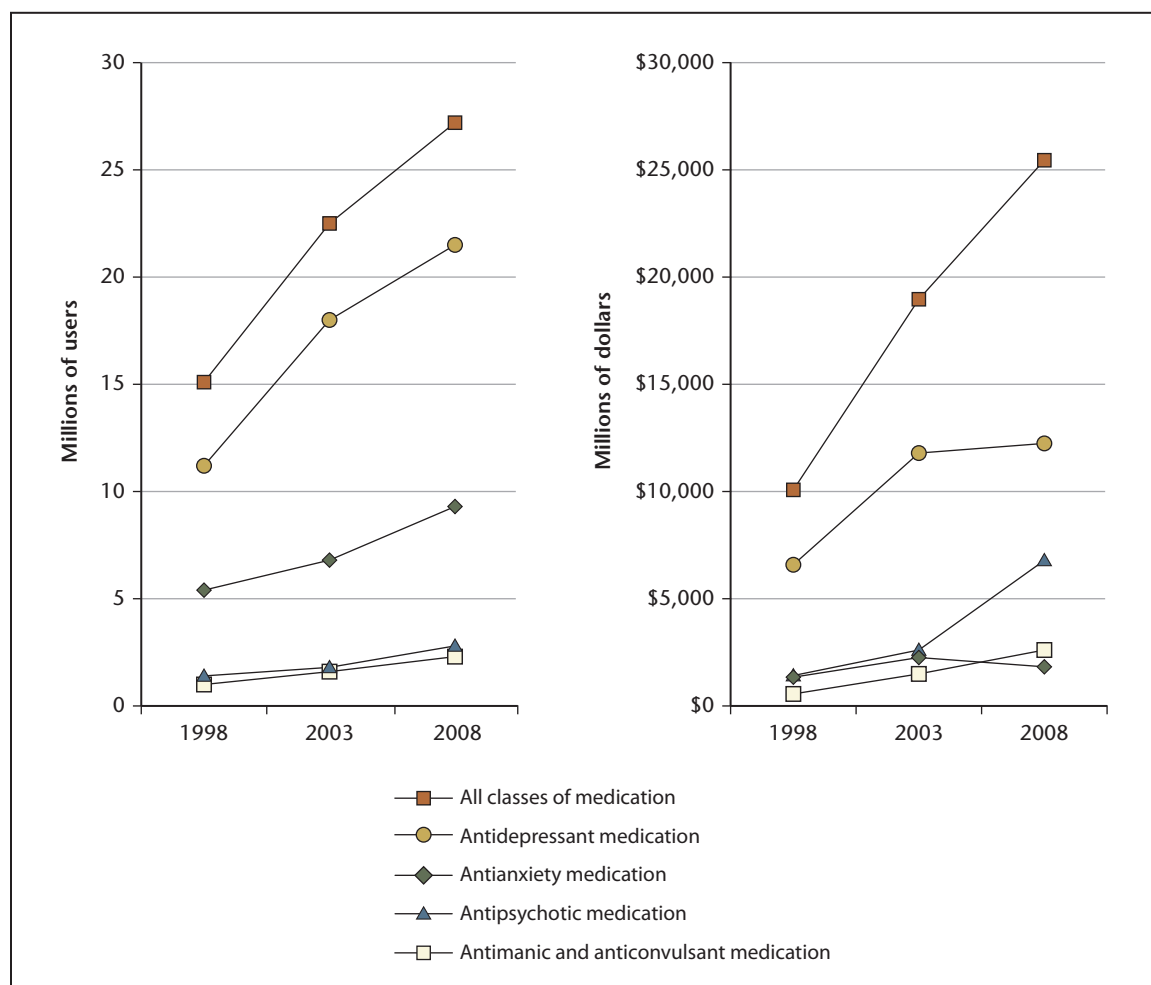
Trends in Adult Utilization of and Expenditures on Mental Health/Substance Abuse Medication

In 1998, 2003, and 2008, antidepressant medications were the most utilized medication class and also had the highest expenditures.

Expenditures on prescription medication accounted for more than one quarter of all expenditures on mental health treatment in recent years. The Medical Expenditure Panel Survey (MEPS) includes a component that gathers data about adult use of and expenditures on psychotropic medications from pharmacies across the United States. This data collection method makes MEPS a particularly reliable source of information for assessing trends in psychotropic medication. [Exhibit 19](#) shows trends in the use of and expenditures on psychotropic medications for adults by class of medication. The exhibit shows the following:

- The number of adult users and the amount of expenditures on psychotropic medications increased over time. In 2008, about 27 million adults used psychotropic medications, accounting for about \$25 billion in expenditures. In comparison, in 1998, about 15 million adults used psychotropic medications, accounting for about \$10 billion in expenditures.
- Of the four classes detailed, antidepressant medications had the most adult users and the highest expenditures. The number of adult users of antidepressants grew rapidly during this period. In 2008, about 22 million adults used antidepressant medications, accounting for about \$12 billion in expenditures on this class of medication.
- Antidepressant medication expenditures grew rapidly from 1998 to 2003, but then leveled off from 2003 to 2008. Antipsychotic medication expenditures increased somewhat from 1998 to 2003 and increased greatly from 2003 to 2008.

Exhibit 19. Number of users of and expenditures on selected mental health/substance abuse (MH/SA) medications for an MH/SA condition among persons aged 18 or older, by selected therapeutic categories, United States, 1998, 2003, and 2008



NOTES: For the sake of clarity, data labels have been omitted from this chart. Antianxiety medications include sedative and hypnotic medications. See Appendix C for complete list of medications. Categorization of medications follows that of the National Institute of Mental Health (<http://www.nimh.nih.gov/health/publications/mental-health-medications/alphabetical-list-of-medications.shtml>). See Table 95 for more details on the constructs in this exhibit.

SOURCES: Medical Expenditure Panel Survey, 1998–2008, Center for Financing, Access, and Cost Trends, Agency for Healthcare Research and Quality.

Zuvekas, S. H. (2005). Prescription drugs and the changing patterns of treatment for mental disorders, 1996–2001. *Health Affairs*, 24(1), 195–205.

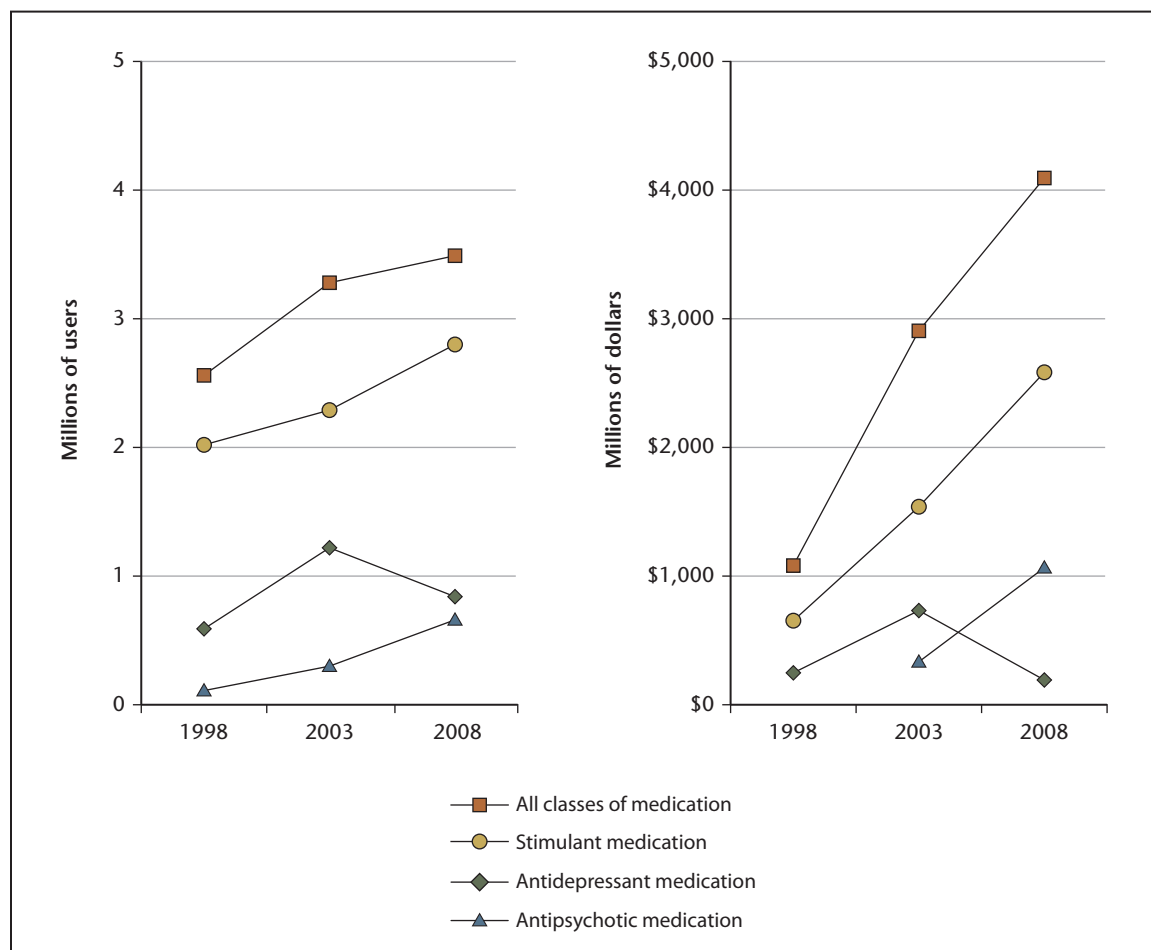
Trends in Utilization of and Expenditures on Psychotropic Medication for Children and Youth

By 2008, stimulant medications—such as medications for attention deficit hyperactivity disorder—had the most users and accounted for the highest expenditures.

Because the mental illnesses that are most prevalent among children and youth are quite different from the mental illnesses that are most prevalent among adults, the classes of psychotropic medication used to treat children and youth are also quite different. The Medical Expenditure Panel Survey (MEPS) includes a component that gathers data from pharmacies across the United States about use of and expenditures on psychotropic medications for children and youth. This data collection method makes MEPS a particularly reliable source of information for assessing trends in psychotropic medication. [Exhibit 20](#) describes the trend in use of and expenditures on these medications for children and youth in 1998, 2003, and 2008. The exhibit shows the following:

- Between 1998 and 2008, the number of children using psychotropic medications and the associated expenditures increased. In 2008, about 3.5 million children used psychotropic medications, accounting for about \$4 billion in expenditures. In comparison, in 1998, about 2.6 million children used psychotropic medications, accounting for about \$1 billion in expenditures.
- Of the three medication classes detailed, stimulant medications—such as medications for attention deficit hyperactivity disorder—had the most users and expenditures. In 2008, 2.8 million children used stimulant medication, accounting for about \$2.6 billion in expenditures.
- The number of children using antidepressant medications and the associated expenditures increased between 1998 and 2003, but decreased between 2003 and 2008.
- Expenditures on antipsychotic medications for children overtook expenditures on antidepressants between 2003 and 2008.

Exhibit 20. Number of users of and expenditures on psychotropic medications for a mental health condition among persons aged 17 or younger, by selected therapeutic categories, United States, 1998, 2003, and 2008



NOTES: Antianxiety medication and antipsychotic medication expenditures in 1998 were suppressed from this chart because the estimates are considered unreliable. For the sake of clarity, data labels have been omitted from this chart. See Appendix C for complete list of medications. Categorization of medications follows that of the National Institute of Mental Health (<http://www.nimh.nih.gov/health/publications/mental-health-medications/alphabetical-list-of-medications.shtml>). See Table 96 for more details on the constructs in this exhibit.

SOURCES: Medical Expenditure Panel Survey, 1998–2008, Center for Financing, Access, and Cost Trends, Agency for Healthcare Research and Quality.

Zuvekas, S. H. (2005). Prescription drugs and the changing patterns of treatment for mental disorders, 1996–2001. *Health Affairs*, 24(1), 195–205.

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- Zuvekas, S. H. (2005). Prescription drugs and the changing patterns of treatment for mental disorders, 1996–2001. *Health Affairs*, 24(1), 195–205.

5. STATES: PEOPLE, PROVIDERS, AND PAYERS

5.1 Narrative

5.1.1 Overview

States play an important role in helping monitor mental health indicators and prioritizing and providing treatment. In 2005, public sources funded \$66 billion in mental health spending, which was 58 percent of all mental health care spending. About half of that public spending—nearly \$34 billion—was spent by States (see Tables 73 and 75 in Section 7). These findings, together with the fact that much of the legislation on mental health treatment is written by State governments, indicates that State-level estimates are critical to a comprehensive view of mental health in the United States.

This section is organized similarly to the three previous sections and includes, in the following order, the number and characteristics of people with mental illness (people), the number and types of mental health facilities and practitioners (providers), and expenditures for mental health services (payers). The data presented support the Substance Abuse and Mental Health Services Administration (SAMHSA) in one of its eight strategic initiatives, Data, Outcomes, and Quality, by improving the accessibility of mental health prevalence, capacity, and expenditures data for provider staff, stakeholders, funders, and policy makers

in need of State-level estimates (SAMHSA, 2011).

5.1.2 Mental Health of States' Populations (*Exhibits 21, 22, and 23 and Tables 98 through 102*)

The exhibits in this subsection map State-level estimates of key mental health-related indicators. For each exhibit, the corresponding data table in Section 7 (indicated in the exhibit note) was used to place each State into one of five ranked categories from highest to lowest. Although the text describes and summarizes each exhibit, further study may be needed to interpret any State-to-State variation in the estimates.

Data on the mental health of State populations describe the number of people with any mental illness (AMI), the subgroup with serious mental illness (SMI), and the number of people with major depressive episode (MDE). Data on adults are presented in [Exhibits 21 and 22](#) and Tables 98 and 99, and data on youth are presented in [Exhibit 23](#) and Table 100. Monitoring the number of people with SMI is important because SMI is particularly debilitating and interferes with a person's ability to cope in everyday situations. MDE is defined as a 2-week period during the year when a person experiences depressed mood. Monitoring MDE is important because MDE is one of the components of

major depression, which is one of the most common mental illness diagnoses.

The main findings for the exhibits and tables indicate that there was little variation across States in the rates of past year SMI (a range of 3.7 percentage points) or MDE (a range of 4.3 percentage points) for adults or in the rate of past year MDE for youth (a range of 3.5 percentage points). To obtain statistically accurate estimates at the State level for these data, two years of data were combined. Thus, the estimates for SMI and MDE span the years 2008 to 2009.

Suicide prevention remains an important concern for State policy makers. Key to supporting this prevention activity is monitoring the rate of death by suicide. In 2006, suicide was the 11th leading cause of death in the United States (Heron, Hoyert, Murphy, Xu, Kochanek, & Tejada-Vera, 2009). As seen in Table 101, national death rates by suicide have increased slightly from 2005 to 2007 (from 10.9 percent to 11.3 percent). In 2007, the rates across States ranged from 5.8 percent to 22.1 percent.

Receipt of mental health treatment is more common among certain subpopulations. Rates of mental illness in the inmate population are understood to be particularly high, and in a time of tight State budgets, this is of particular concern to State policy makers who must find a way to fund treatment. In 2000, 12.8 percent of total inmates (over 137,000 inmates) received therapy and counseling, which was the most common form of mental health service received (Table 102). There is a large range, between 2.7 percent and 37.3 percent, for the receipt of this service across States in 2000.

5.1.3 Providers and Settings for Mental Health Services at the State Level

(Exhibits 24, 25, 26, and 27 and Tables 103 through 118)

Mental health treatment relies on specialist care (from psychiatrists, for example) and nonspecialist care (from primary care providers, for example); much of the care is delivered in an outpatient setting. Tables 103 and 104 present estimates on adults receiving outpatient specialty and nonspecialty mental health treatment. To provide statistically reliable estimates at the State level, data from 5 years (2005–2009) are combined. Over those years, the percentage of adults receiving treatment from outpatient specialty providers ranged from 3.0 to 9.5 percent. The percentage of adults receiving mental health treatment from outpatient nonspecialty providers ranged from 1.1 to 3.7 percent.

Table 106 presents treatment receipt estimates for youth aged 12 to 17 for the period 2005 to 2009 combined. Data from 5 years are combined to provide statistically reliable estimates at the State level. Nationwide, 11.4 percent of youth (2.9 million youth) received treatment from outpatient specialty providers, and rates across States ranged from 8.0 to 16.9 percent. Nationally, 2.8 percent of youth aged 12 to 17 (over 700,000 youth) received treatment from providers who were not mental health specialists (a medical pediatrician or other family doctor), and State-level estimates ranged from 1.5 to 4.5 percent.

State-level estimates for the number of mental health organizations and service capacity vary considerably, with States that have a greater proportion of the population living in rural areas often having lower capacity. Table 109 presents estimates of the number of mental health professionals across

disciplines. The District of Columbia and Maryland—with relatively high proportions of the population living in urban areas—have the highest rates of mental health professionals. States with large proportions of the population living in rural areas, such as Mississippi and Nevada, often have the lowest rates, although the rates vary by discipline. An important limitation of these data is that they do not distinguish between adult and child service providers.

[Exhibit 26](#) and Table 111 present estimates on the shortage of mental health professionals in the adult household population across all States. Overall, many northeast States (Connecticut, the District of Columbia, Maryland, Massachusetts, New Hampshire, and New York) do not appear to be facing a shortage of professionals. States facing a shortage, such as Alabama, Idaho, Mississippi, Nevada, and Wyoming, have a relatively large proportion of the population living in rural areas. The supply of inpatient psychiatric beds in U.S. hospitals also varies across States, as illustrated in Tables 113, 114, and 115, and in [Exhibit 27](#). The most populated States in the country (California, New York, and Texas) had the most inpatient psychiatric beds (Federal and non-Federal) relative to all States, whereas the District of Columbia, Mississippi, and Wyoming had the highest number of these beds per 100,000 adults ([Exhibit 27](#) and Table 115). The total number of mental health organizations within States varies widely, with less populated States and States with a relatively large proportion of the population living in rural areas having fewer facilities, as seen in Tables 116, 117, and 118. Nationwide, the most common forms of mental health organizations are outpatient clinics and general hospitals that treat psychiatric patients.

5.1.4 *States' Payers and Payment Mechanisms*

(Tables 119 through 132)

Mental health spending from all public and private sources totaled almost \$113 billion in 2005 (see Table 70). Thirty percent of that spending comes from State sources (see Table 75). State Mental Health Agencies (SMHAs) have considerable authority in directing State mental health treatment resources. SMHA revenues are derived from State general funds, followed by Medicaid and the State block grant programs, as seen in Table 119. In fiscal year (FY) 2008, 44 of 51 SMHAs devoted at least half of their funding to community mental health programs (Table 120).

The recent recession has particularly affected State budgets, leading to concern about how States can support people with mental health conditions. Approximately two thirds of States have cut mental health care funding in the past 3 years, with total cuts reaching nearly \$1.6 billion (Honberg, Diehl, Kimball, Gruttadaro, & Fitzpatrick, 2011). Furthermore, mental health spending grew at a slower rate than the national gross domestic product in 2004 and 2005, and it continued to shrink as a share of all health spending (Mark et al., 2011; SAMHSA, 2011). Tables 121 and 122 describe the impact for SMHAs across the Nation in terms of funding and the decline in the number of inpatient State psychiatric beds. The South Atlantic region experienced the largest percentage of budget cuts in FY 2009, FY 2010, and FY 2011 (Table 121). Nationwide, approximately 2,200 inpatient State psychiatric beds were closed in 2010 (Table 122). Further study may be needed to determine the potential impact of closing psychiatric beds on the provision of care.

One of the main sources of funding for mental health treatment in States is Medicaid, a program funded by the Federal and State governments and administered by the States. It provides funding for low-income individuals and others in certain defined eligibility categories to receive health coverage, including treatment for mental health conditions. Of the \$113 billion spent on mental health nationwide, 28 percent of the spending was through Medicaid (see Table 64). Spending by Medicaid programs across 13 States can be seen in Tables 123 through 127. The most common diagnostic category covered by Medicaid across all 13 States in 2003 was neurotic and other depressive disorders (over 280,000 beneficiaries), followed by major depression (over 254,000 beneficiaries), and all other diagnoses (over 234,000 beneficiaries) (Table 124).

Another source of funding for mental health treatment is the Federal Medicare program, which provides coverage to people aged 65 or older or those who qualify because of a disability. Medicare has received considerable attention from policy makers because it accounts for 23 percent of all health care spending and about half of health spending paid for by the government (National Center for Health Statistics, 2011). For mental health, Medicare is an important but relatively small share of spending at about 8 percent (see [Exhibit 18](#) and Table 75). Tables 128 through 132 provide data on Medicare spending. In 2007, more than \$8 billion of Medicare funds were spent on mental health and substance abuse treatment units in community hospitals nationwide. Medicare mental health expenditures per claimant were on average \$1,500 but also varied across the States (Table 129).

5.2 Exhibits

[Exhibits 21–27](#)

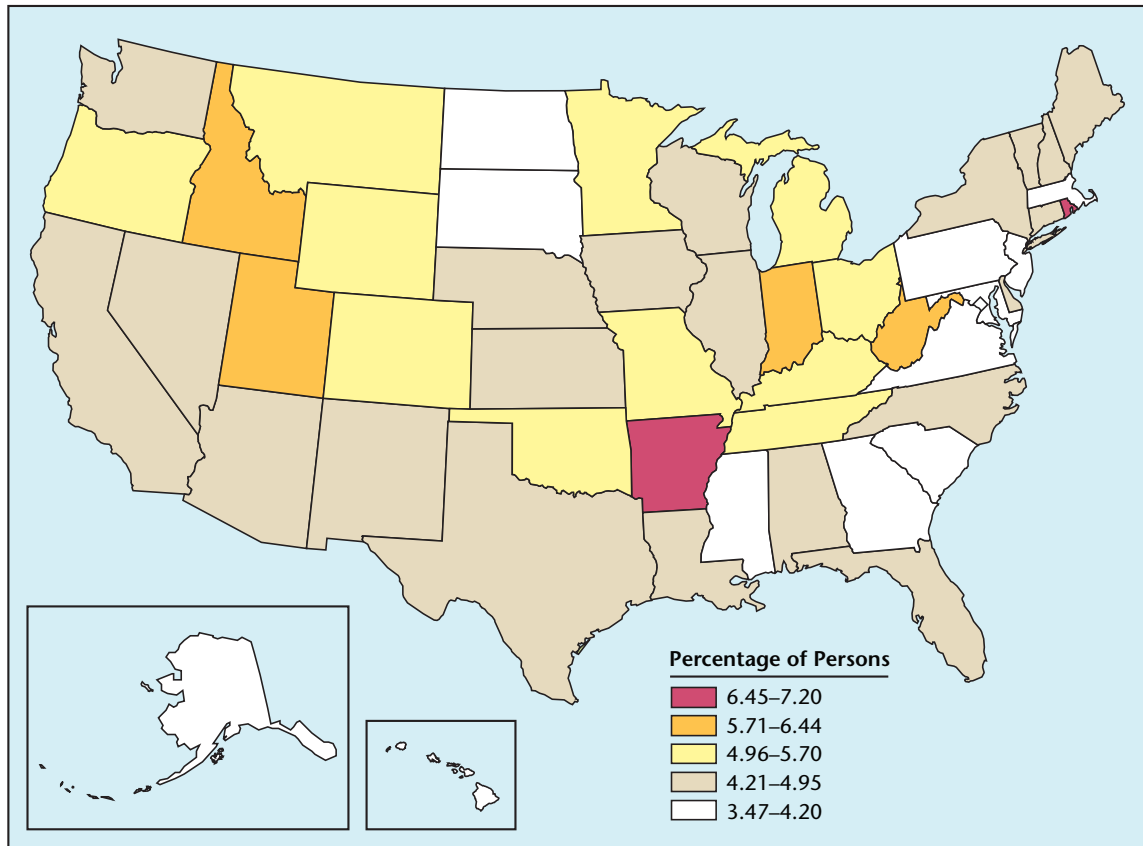
Adults with Serious Mental Illness

In the 2008–2009 period, State-specific prevalence of adults with past year serious mental illness ranged from 3.5 percent to 7.2 percent.

Serious mental illness (SMI) is of particular concern to policy makers and providers because having this kind of diagnosable mental illness involves serious functional impairment that can greatly diminish a person's quality of life. Since 2008, the annual National Survey on Drug Use and Health (NSDUH) has included measures that permit the estimation of SMI in adults across the United States. [Exhibit 21](#) uses two years of data combined (2008 and 2009) to display geographic variation across the States in the proportion of adults with past year SMI. The two years of data were combined to achieve statistically precise estimates. The exhibit shows the following patterns:

- During the 2008–2009 period, State-specific variation in the proportion of people with SMI ranged from 3.47 percent to 7.20 percent. Because State-to-State variation in the rate of SMI was low, the five categories have a small range of values, of about 0.7 of a percentage point. Two States were in the category corresponding with the highest State-specific prevalence of SMI (6.45 to 7.20 percent): Arkansas and Rhode Island.
- Four States were in the second highest category (5.71 to 6.44 percent): Idaho, Indiana, Utah, and West Virginia.
- The remaining 44 States and the District of Columbia were fairly evenly spread across the third highest (4.96 to 5.70 percent), fourth highest (4.21 to 4.95 percent), and lowest (3.47 to 4.20 percent) categories.
- The States in the lowest category of State-specific prevalence (3.47 to 4.20 percent) are along the East Coast, as well as Alaska, Hawaii, Mississippi, North Dakota, and South Dakota.

Exhibit 21. Percentage of persons aged 18 or older with past year serious mental illness (SMI), by State, 2008–2009



NOTES: Serious mental illness (SMI) is defined as having a diagnosable mental, behavioral, or emotional disorder, other than a substance use disorder, that met the criteria in the *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition* (DSM-IV) (APA, 1994) and resulted in serious functional impairment. Each State was placed into one of five categories that range from highest to lowest SMI. Category cutoffs were created by taking the difference between the values for the highest and lowest ranked States and then dividing that difference by five. See Table 98 for more details on the constructs in this exhibit.

SOURCE: National Survey on Drug Use and Health, 2008 and 2009, Substance Abuse and Mental Health Services Administration, Office of Applied Studies.

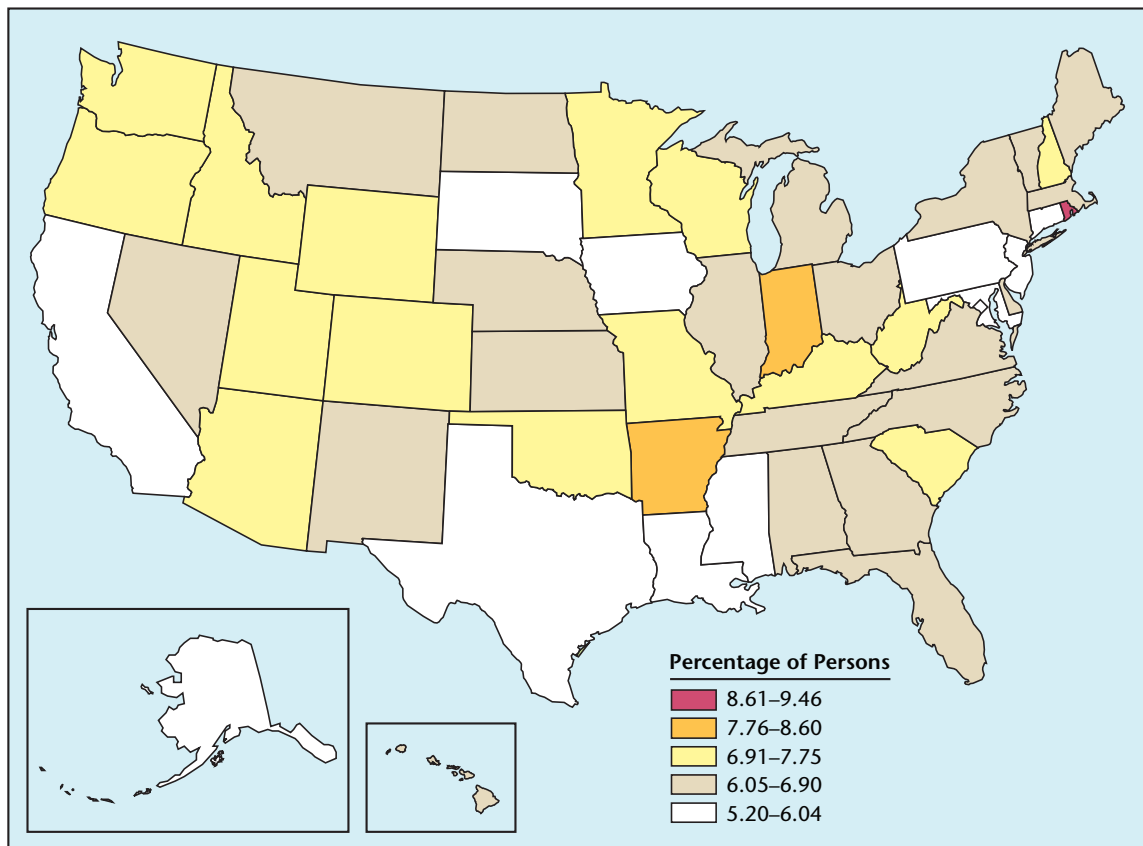
Adults with Past Year Major Depressive Episode

In the 2008–2009 period, State-level prevalence rates of adults with a past year major depressive episode ranged from 5.2 percent to 9.5 percent.

Major depressive disorder is a serious and relatively common mental health condition that can greatly reduce a person's ability to function in life. One important component of this disorder is major depressive episode (MDE), which is a 2-week period over which a person experiences depressed mood. To assess the mental illness of the Nation, the National Survey on Drug Use and Health (NSDUH), a nationally representative survey of the civilian, noninstitutionalized population of the United States, asks questions pertaining to incidence of past year MDE among adults and youth in the United States. [Exhibit 22](#) displays the geographic variation in the proportion of adults with past year MDE in 2008 and 2009 (two years of data were combined to obtain statistically precise estimates). The exhibit shows the following:

- State-specific prevalence of adults with past year MDE ranged from 5.20 percent to 9.46 percent.
- There was little variation in past year MDE across the States. Thus, the five categories have a small range of values of about 0.9 of a percentage point.
- One State (Rhode Island) was in the category corresponding with the highest State-specific prevalence of MDE (8.61 to 9.46 percent).
- Two States (Arkansas and Indiana) were in the second highest MDE category (7.76 to 8.60 percent).
- A relatively large number of States were in each of the remaining three categories; 15 States were in the third highest category (6.91 to 7.75 percent); 21 States were in the fourth highest category (6.05 to 6.90 percent); and 11 States, plus the District of Columbia, were in the lowest category (5.20 to 6.04 percent).

Exhibit 22. Percentage of persons aged 18 or older with past year major depressive episode (MDE), by State, 2008–2009



NOTES: Major depressive episode (MDE) is defined as a period of at least 2 weeks when a person experienced a depressed mood or loss of interest or pleasure in daily activities and had a majority of specified depression symptoms. Each State was placed into one of five categories that range from highest to lowest MDE. Category cutoffs were created by taking the difference between the values for the highest and lowest ranked States and then dividing that difference by five. See Table 99 for more details on the constructs in this exhibit.

SOURCE: National Survey on Drug Use and Health, 2008 and 2009, Substance Abuse and Mental Health Services Administration, Office of Applied Studies.

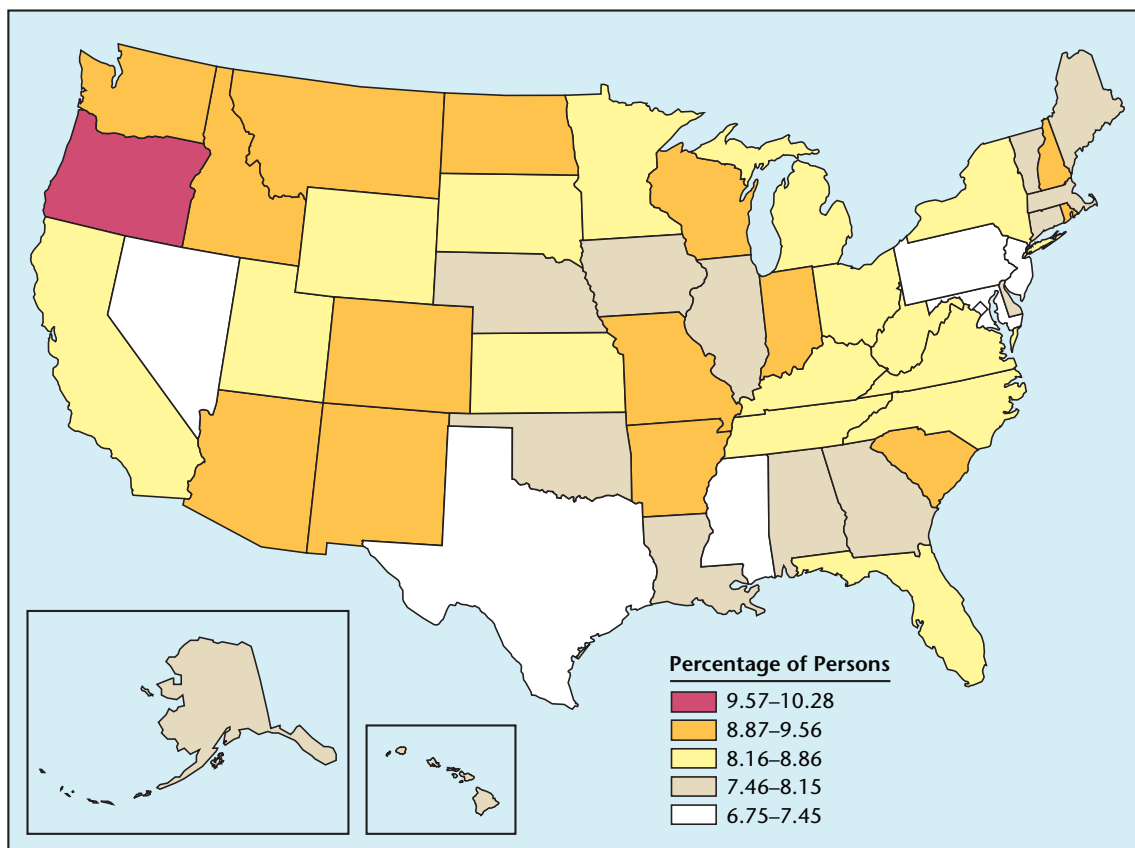
Youth with Past Year Major Depressive Episode

In the 2008–2009 period, State-level prevalence rates of youth with a past year major depressive episode ranged from 6.8 percent to 10.3 percent.

Depression involves many troubling symptoms, including persistent sadness, discouragement, diminished feelings of self-worth, and loss of interest in usual activities. Each year, depression affects millions of adolescents. One aspect of depression is having a major depressive episode (MDE), a period of 2 weeks or longer during which certain symptoms are experienced. The National Survey on Drug Use and Health (NSDUH), a nationally representative survey of the civilian, noninstitutionalized population of the United States, reports State-level estimates of past year MDE among youth. [Exhibit 23](#) shows the geographic dispersion by State of past year MDE among youth aged 12 to 17 in 2008 and 2009 (two years of data were combined to ensure statistically precise estimates). The exhibit shows the following:

- The State-specific prevalence of youth with MDE ranged from 6.75 percent to 10.28 percent.
- There was relatively little variation in past year MDE across the States. Thus, the five categories have a small range of values of about 0.7 of a percentage point.
- One State (Oregon) was in the category corresponding to the highest State-specific prevalence of past year MDE for youth (9.57 to 10.28 percent).
- Seven States were in the lowest MDE category for youth (6.75 to 7.45 percent): the District of Columbia, Maryland, Mississippi, Nevada, New Jersey, Pennsylvania, and Texas.
- The middle three categories of past year MDE prevalence among youth had roughly equivalent numbers (14 to 15) of States in each category.

Exhibit 23. Percentage of persons aged 12 to 17 with a past year major depressive episode (MDE), by State, 2008–2009



NOTES: Major depressive episode (MDE) is defined as a period of at least 2 weeks when a person experienced a depressed mood or loss of interest or pleasure in daily activities and had a majority of specified depression symptoms. Each State was placed into one of five categories that range from highest to lowest MDE. Category cutoffs were created by taking the difference between the values for the highest and lowest ranked States and then dividing that difference by five. See Table 100 for more details on the constructs in this exhibit.

SOURCE: National Survey on Drug Use and Health, 2008 and 2009, Substance Abuse and Mental Health Services Administration, Office of Applied Studies.

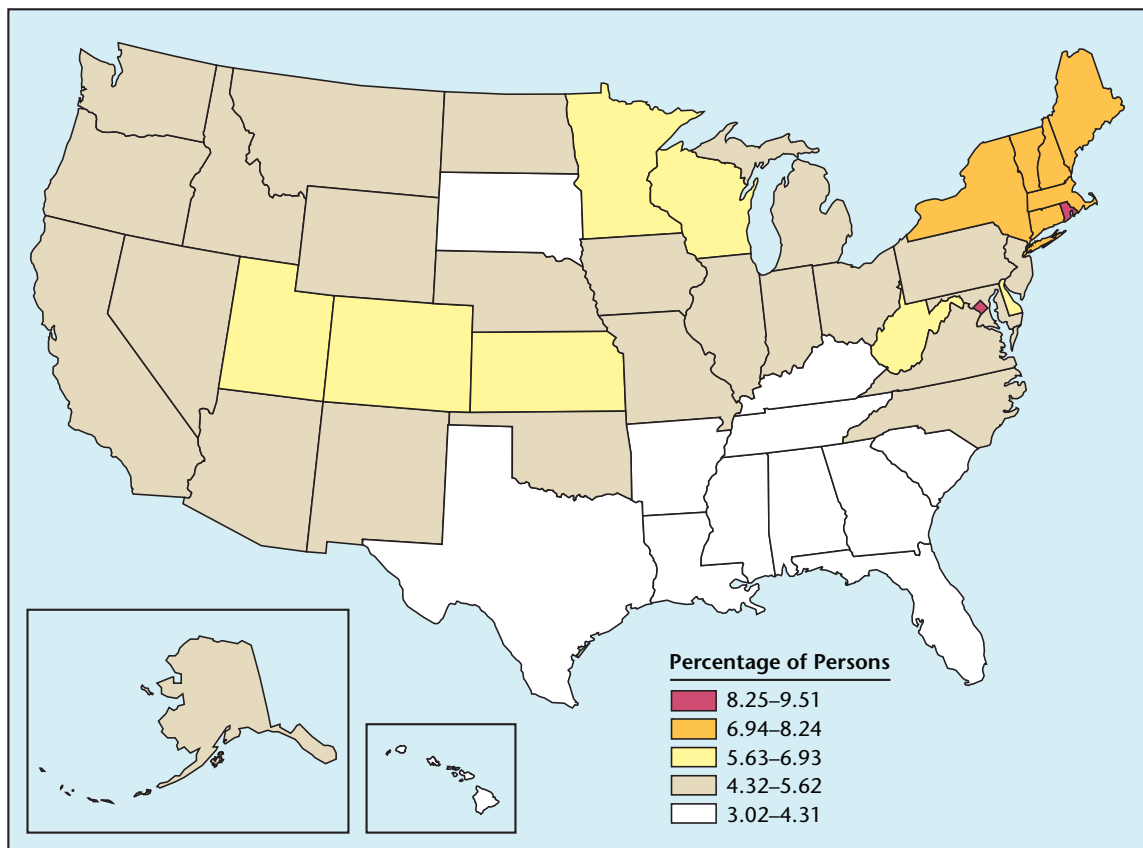
Adults Using Outpatient Specialty Mental Health Treatment

In the 2005–2009 period, State-level utilization rates of outpatient specialty mental health treatment for adults ranged from 3.0 percent to 9.5 percent.

A number of specialist professionals provide important services to people with mental health symptoms. These specialists include psychologists, psychiatrists, therapists, counselors, and social workers. Except for when treatment requires an overnight stay in inpatient or residential settings, specialists typically provide treatment to patients in an outpatient setting, such as a clinic, office, or day hospital. The National Survey on Drug Use and Health (NSDUH) reports State-level utilization rates for several types of mental health treatment. [Exhibit 24](#) shows the State utilization rates for receiving any outpatient specialty mental health treatment in the 5-year period from 2005 through 2009. Five years of data were combined to ensure statistically precise estimates. The exhibit shows the following:

- The highest State-level utilization rate of outpatient mental health treatment for adults was 9.5 percent, which was more than three times the lowest rate of 3.0 percent. This range is high compared with the variation in mental health prevalence across States.
- Two States were in the highest category of treatment utilization: the District of Columbia and Rhode Island. A cluster of States in the Northeast was in the second highest category of utilization.
- Although the overall range in rate of receipt across all States was relatively large, the majority of States (36 of 51 examined) were fairly evenly spread across two categories. Thus, for a large subset of States, the range of estimates was low.
- Twenty-four States were in the second lowest category, for which the utilization rate was between 4.32 and 5.62 percent. These States were spread across the country, excluding the Northeast and much of the Southeast.
- Twelve States were in the lowest category. These States were all in the South and Southeast, plus Hawaii and South Dakota.

Exhibit 24. Percentage of persons aged 18 or older who received outpatient specialty mental health treatment, by State, 2005–2009



NOTES: Each State was placed into one of five categories that range from highest to lowest proportion of the population who received treatment. Category cutoffs were created by taking the difference between the values for the highest and lowest ranked States and then dividing that difference by five. See Table 103 for more details on the constructs in this exhibit.

SOURCE: National Survey on Drug Use and Health, 2005–2009, Substance Abuse and Mental Health Services Administration, Office of Applied Studies.

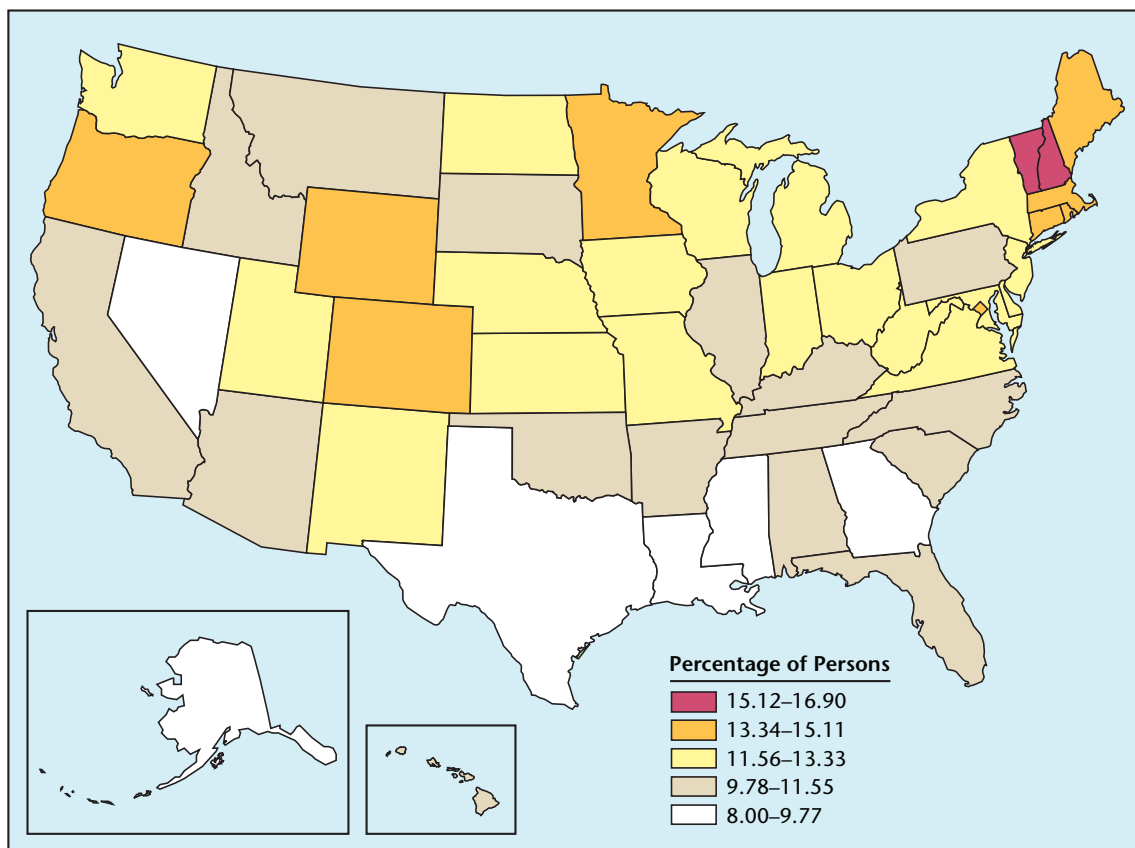
Youth Using Outpatient Specialty Mental Health Treatment

In the period 2005–2009, the State-level rates of youth using past outpatient mental health treatment was between 8.0 and 16.9 percent.

The mental health treatment that youth use most often is outpatient treatment. The National Survey on Drug Use and Health (NSDUH) reports State-level utilization rates for outpatient specialty treatment by youth aged 12 to 17. This survey defines outpatient treatment as any treatment or counseling received at an outpatient mental health clinic or center; the office of a private therapist, psychologist, psychiatrist, social worker, or counselor that was not part of a clinic; a doctor's office that was not part of a clinic; an outpatient medical clinic; a partial day hospital or day treatment program; or some other place. [Exhibit 25](#) shows geographic variation of these estimates in the 5-year period from 2005 through 2009 (five years of data were combined to ensure statistically precise estimates). The exhibit shows the following:

- The proportion of youth in a State who used outpatient mental health treatment ranged from 8.00 to 16.90 percent.
- There was relatively little variation in the proportion of youth who used outpatient mental health treatment across the States. Thus, the five categories have a small range of values, of about 1.8 percentage points.
- The number of States in each category was uneven. Two States (New Hampshire and Vermont) were in the highest category (15.12 to 16.90 percent), and 6 States (Alaska, Georgia, Louisiana, Mississippi, Nevada, and Texas) were in the lowest category (8.00 to 9.77 percent).
- Nine States were in the second highest category (13.34 to 15.11 percent), 18 States were in the middle category (11.56 to 13.33 percent), and 16 States were in the second lowest category (9.78 to 11.55 percent).

Exhibit 25. Percentage of persons aged 12 to 17 who received outpatient specialty mental health treatment, by State, 2005–2009



NOTES: Each State was placed into one of five categories that range from highest to lowest proportion of the population who received treatment. Category cutoffs were created by taking the difference between the values for the highest and lowest ranked States and then dividing that difference by five. See Table 106 for more details on the constructs in this exhibit.

SOURCE: National Survey on Drug Use and Health, 2005–2009, Substance Abuse and Mental Health Services Administration, Office of Applied Studies.

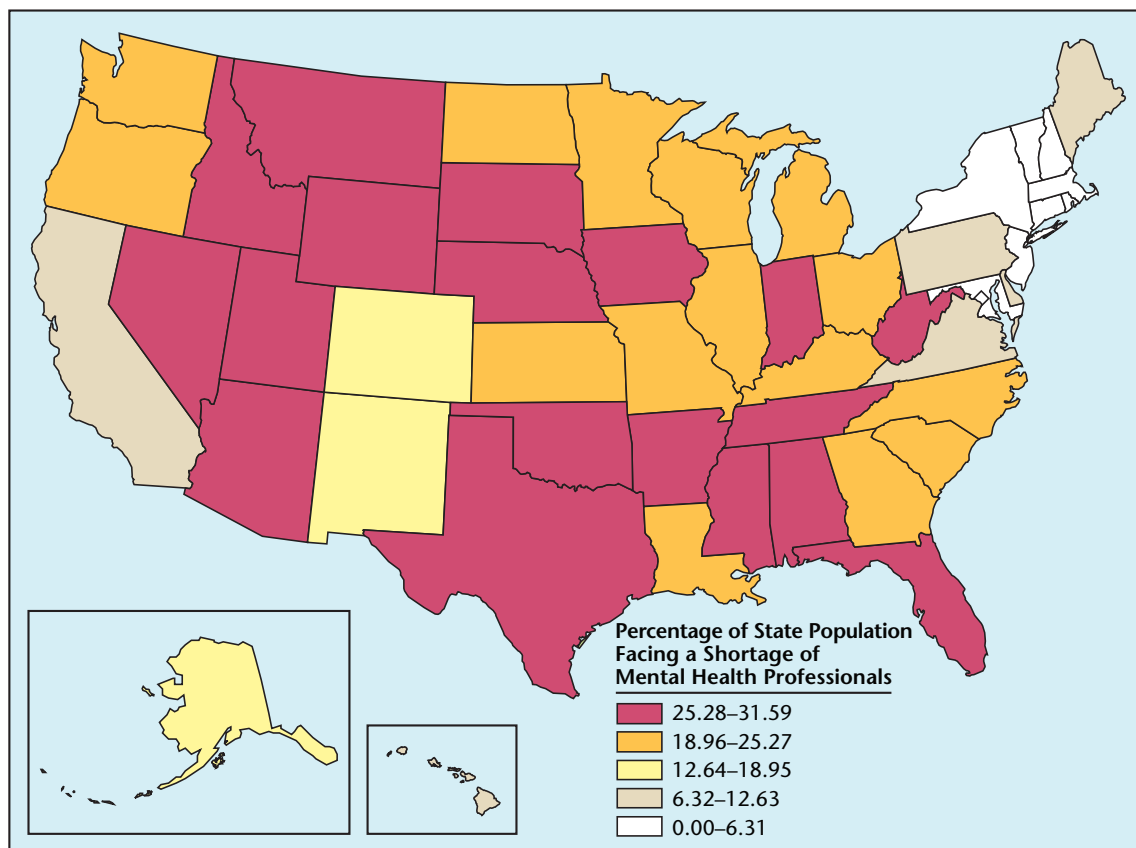
Shortage of Mental Health Professionals in the United States, 2006

In 2006, the proportion of individuals facing a shortage of mental health professionals ranged from 0.0 to 31.6 percent across the States.

Recently published research has shown that counties with a relatively large rural population may be more likely to have a shortage of mental health professionals (Ellis et al., 2009; Konrad et al., 2009; Thomas et al., 2009, 2010). [Exhibit 26](#) describes State-level variation in the shortage of mental health professionals. The exhibit shows the following:

- In general, States with a large proportion of the population living in rural areas had a greater shortage of mental health professionals.
- Thirty-three States were in the two highest categories, with 18 States in the highest category (25.28 to 31.59 percent) and 15 States in the second highest category (18.96 to 25.27 percent).
- The Northeast has relatively low rates of shortage, perhaps because a large proportion of each State's population is urban. Thirteen of the 15 States in the two lowest categories are in the Northeast. California and Hawaii are also in the second lowest category (6.32 to 12.63 percent).

Exhibit 26. Estimated shortage of mental health professionals in the United States, by State, 2006



NOTES: Each State was placed into one of five categories that range from highest to lowest proportion of the population facing a shortage of mental health professionals. Category cutoffs were created by taking the difference between the values for the highest and lowest ranked States and then dividing that difference by five. See Table 111 for details of how the shortage measures were developed.

SOURCES: Ellis, A. R., Konrad, T. R., Thomas, K. C., & Morrissey, J. P. (2009). County-level estimates of mental health professional supply in the United States. *Psychiatric Services*, 60(10), 1315–1322.

Konrad, T. R., Ellis, A. R., Thomas, K. C., Holzer, C. E., & Morrissey, J. P. (2009). County-level estimates of need for mental health professionals in the United States. *Psychiatric Services*, 60(10), 1307–1314.

Thomas, K. C., Ellis, A. R., Konrad, T. R., Holzer, C. E., & Morrissey, J. P. (2009). County-level estimates of mental health professional shortage in the United States. *Psychiatric Services*, 60(10), 1323–1328.

Thomas, K. C., Ellis, A. R., & Morrissey, J. P. (2010). Where are the psychiatric physician assistants? Reply. *Psychiatric Services*, 61(1), 95–96.

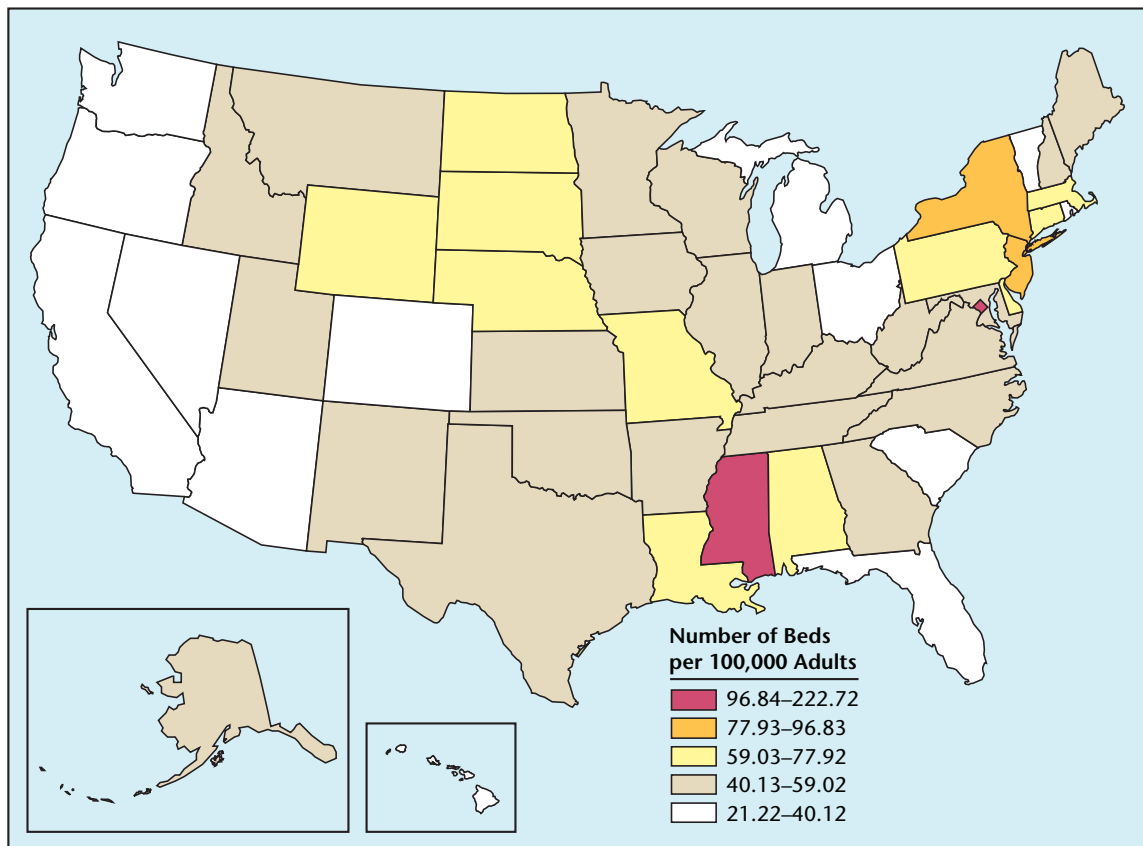
Non-Federal Inpatient Psychiatric Hospital Beds

In 2007, the number of non-Federal inpatient psychiatric hospital beds (per 100,000 adults) across all States and the District of Columbia ranged from 21.2 to 222.7.

People with serious symptoms of mental illness may need inpatient care. Among the types of facilities that can provide inpatient care, psychiatric hospitals are a particularly important source for specialist care. However, in an era of State budget crises and preferences for community-based treatment, psychiatric hospitals are closing and dedicated beds may no longer be as available (see Table 122). With a few exceptions, States and private sources rather than the Federal government fund most psychiatric hospitals. [Exhibit 27](#) shows the geographic variation in the number of non-Federal inpatient psychiatric hospital beds per 100,000 adults across all States in 2007. The estimates are from Aron et al. (2009), who used the American Hospital Association's annual survey database for fiscal year 2007. That database has been maintained since 1946 to provide estimates on the structure, facilities, and services of the Nation's hospitals and health care providers. The exhibit shows the following:

- The number of non-Federal inpatient psychiatric hospital beds across all States and the District of Columbia ranged from 21.22 to 222.72 per 100,000 adults.
- Two States were in the top two categories with the highest number of beds per 100,000 adults: the District of Columbia and Mississippi (96.84 to 222.72 beds). New Jersey and New York were in the second highest category (77.93 to 96.83 beds).
- Thirteen States, including all States on the West Coast of the United States, among others across the country, were in the category with the fewest number of beds (21.22 to 40.12 beds).

Exhibit 27. Inpatient psychiatric hospital beds in non-Federal hospitals, per 100,000 adults, by State, 2007



NOTES: Each State was placed into one of five categories that range from highest to lowest number of beds per 100,000 adults. Category cutoffs were created by taking the difference between the values for the highest and lowest ranked States and then dividing that difference by five. Because the District of Columbia had an outlier value, it was excluded from the threshold calculations but included in the exhibit. See Table 115 for more details on the constructs in this exhibit.

SOURCES: Aron, L., Honberg, R., Duckworth, K., Kimball, A., Edgar, E., Carolla, B., ... & Fitzpatrick, M. (2009). *Grading the States 2009: A report on America's health care system for adults with serious mental illness*. Arlington, VA: National Alliance on Mental Illness.

State Single Year of Age and Sex Resident Population Estimates: April 1, 2000 to July 1, 2009, U.S. Census Bureau.

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- Thomas, K. C., Ellis, A. R., & Morrissey, J. P. (2010). Where are the psychiatric physician assistants? Reply. *Psychiatric Services*, 61(1), 95–96.

6. DATA GAPS

Mental Health, United States, 2010 compiles estimates from multiple and disparate data sources to serve as a comprehensive, up-to-date reference source on the Nation's mental health. This section notes the key gaps in the estimates that may help delineate potential areas for further study.

Despite the strengths of the data sources in this volume, they are limited in their ability to serve as a **public health surveillance system** that can track over time the U.S. population's overall mental health status; capacity of, access to, and receipt of treatment; and the degree to which the need for treatment is met. At its best, a robust mental health surveillance system would provide information within subregions (States, counties, or rural/metropolitan area) of the United States. Such data could be used, for example, to track the impact of natural disasters on populations' mental health status, as well as the ongoing mental health of particular subpopulations, such as children and older adults. Public health surveillance systems that exist for other diseases, such as HIV/AIDS, could serve as examples for mental health.

As part of, or in addition to, performing a mental health surveillance function, data are needed over the course of peoples' lives to help monitor **recovery from and the course of mental illness**. Mental health conditions often are long-lasting and have symptoms that greatly impair a person's ability to

function in daily life. Studies that compare, for example, depression to other long-lasting and recurrent chronic diseases, such as arthritis, asthma, and diabetes, show that depression is associated with one of the greatest decrements to health (Moussavi, Chatterji, Verdes, Tandon, Patel, & Ustun, 2007). Data are needed to monitor and track mental illness from the onset of a person's symptoms through the period of recovery. Severity, acuity, and functioning are critical determinants of what resources would be needed to address mental health conditions. Thus, data would ideally contain measures of diagnosis or class of disease and reliable indicators of disease severity and acuity and/or a person's functioning. Were such surveillance data available, they could help the Substance Abuse and Mental Health Services Administration (SAMHSA) achieve one of its eight strategic initiatives: to support recovery from mental illness.

Surveillance data are particularly needed for people in **vulnerable subpopulations**, many of which have higher rates of mental health conditions. No reliable national- or subnational-level data are available to monitor the mental health of children, people who are homeless, and military families. Data for other subgroups may be old and infrequently available. This is compounded by the fact that data on people in institutional settings—such as those who are incarcerated or in nursing homes—are often excluded from the sampling frame of large-scale

surveys, such as the National Survey on Drug Use and Health (NSDUH). Ongoing efforts, such as a forthcoming survey of inmates, seek to rectify this.

Data on **gaps in treatment capacity** for specific mental health services and supports, as well as for specific population groups (e.g., children, older adults, returning military, persons in jails and prisons, persons with major depression), are important for ensuring that the appropriate mix and level of services and supports are available where they are needed. Assessing gaps in capacity entails collecting data on treatment need and treatment receipt and then combining these data. Over the next several years, health care reform will greatly expand health insurance coverage for many currently uninsured individuals. However, expanding insurance eligibility for individuals with mental illnesses may have limited impact if Federal, State, and local mental health systems are unable to estimate future demand appropriately and identify and expand capacity to eliminate gaps in treatment capacity.

The increase in demand for the mental health treatment system that will arise from health care reform also raises questions about the degree to which the **mental health workforce** can meet the increased demand. No single data source exists for such workforce data. Rather, separate data sets are available for each provider type that vary by the measures they contain, the frequency of data collection, and the methods of data collection. Some use membership surveys (thereby missing nonmembers and nonresponders), whereas others use licensure data (which may include professionals who are working part time or not clinically active). Despite occasional comprehensive analyses that unify these various data sets, there is no program to

systematically collect data over time, as would be required for consistent monitoring.

In 2005, Medicaid accounted for 28 percent of all mental health spending (SAMHSA, 2010). The expanded demand for mental health services from health care reform means that Medicaid will take an even greater role in underwriting mental health treatment. However, **national and regularly updated estimates of detailed Medicaid mental health spending** using these data are not available. The preferred data for tracking spending and health care use in Medicaid are on claims filed for reimbursement. The Centers for Medicare & Medicaid Services makes these data available for analysis. But there are several challenges to obtaining reliable estimates from these available data. Chief among them is that most States place the majority of Medicaid beneficiaries in managed care, and reliable estimates on utilization and spending are typically not available for Medicaid managed care beneficiaries.

Another issue concerning obtaining reliable estimates from existing data is that estimates of the amount of **mental health care being provided by nonspecialty physicians**, such as primary care physicians, typically depend on a mental health diagnosis being recorded in the medical chart or billing record. However, analyses have shown that even though primary care physicians write the majority of prescriptions for psychotropic medications, these prescriptions are not accompanied by a mental health diagnosis. Thus, spending on mental health treatment provided by primary care physicians may be underestimated in current estimates. Better data are needed on how to allocate expenditures to primary care physician visits when a psychotropic medication is provided.

Addressing any one of the above data gaps may require considerable coordination among data providers, such as Federal agencies. For example, data on military families' behavioral health needs may require collaboration among SAMHSA, the U.S. Department of Veterans Affairs (VA), and the Department of Defense. The gaps may need to be addressed so that policy and treatment provision can keep pace with the changing face of the U.S. mental health service delivery system. In a period of considerable financial strain on taxpayer-supported services and system-wide health care reform, good data are critical to making informed and timely decisions on the provision of scarce mental health resources.

6.1 References

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